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THE CODEBREAKER KIDS RETURN

George Edward Stanley

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THE CODEBREAKER KIDS RETURN

Chapter One

Dinky Lakewood was looking through the high-powered spy binoculars his parents had given him for Christmas. "Hey, that's Dallas down there!" he said.

Lulu Hawthorne and Wong Chiang pushed toward the window of the airplane.

"Where are the cows?" asked Lulu. "Where are the ranches?"

"Yeah," said Wong. "Can you see where Ethel lives?"

"I think she sold her ranch right after she eloped with the Governor of Texas," said Dinky. He returned his binoculars to his backpack.

"I sure hated to see Ethel leave Washington," said Wong. "We could have used her at the Secret Code Service."

Lulu arched an eyebrow. "She wasn't dedicated enough for the spy business," she said. "You have to be dedicated like me. You can't just drop everything like she did and run off to Texas to be a cowgirl. You have to be there when the CIA, the FBI, the NSA, the State Department, the Pentagon, and all those thousands of for-

eign spies in Washington, D.C., need you! *That's* dedication!''

''But Lulu,'' Dinky said, ''we haven't had a client since Ethel moved.''

Just then the airplane touched down smoothly at the Dallas-Fort Worth International Airport and taxied to the gate.

''I wonder if Ethel will be here to meet us,'' said Lulu.

''She said she'd try,'' said Dinky.

''What's this mysterious problem she wants us to solve?'' asked Wong.

''All I know is that it has something to do with spies,'' replied Dinky.

''Well, whatever it is,'' said Lulu, ''I am more than qualified to get the job done!''

The door to the airplane opened.

Dinky, Lulu, and Wong put on their backpacks and followed the other passengers out.

Suddenly, sirens sounded and lights flashed.

Security guards were shouting, *''Everybody out of the way, please! Everybody out of the way!''*

''What's wrong?'' said Wong.

''Maybe it's a hijacking,'' said Dinky. ''Maybe it's terrorists.''

Lulu craned her neck to see. ''I wonder if they need any secret messages encoded,'' she said.

Dinky and Wong looked at her strangely.

Suddenly, a golf cart came down the corridor at very high speed. It screeched to a halt in front of Dinky, Lulu, and Wong.

Sitting behind the wheel was Ethel. She was dressed in a bright orange cowgirl outfit. It was covered with

orange sequins and trimmed in white satin. She also wore a white cowgirl hat with a bright orange band.

Dinky had forgotten how flamboyant Ethel could be. How old was she now, anyway? he wondered. Seventy-five? Seventy-six? He smiled. This could turn out to be a very interesting weekend.

Lulu turned to Wong. "This is the person you wanted to work for the Secret Code Service?" she said. "Are you out of your mind?"

"I don't see anything wrong," said Wong.

"Hey, guys! Sorry I'm late!" Ethel shouted at them. "Get on!"

"She can't be serious," Lulu muttered.

"It looks like fun to me," said Dinky.

Dinky and Wong climbed onto the golf cart, followed slowly by Lulu.

Ethel put it in gear, made a sharp turn, then roared off though the terminal.

The crowd along the way began applauding.

"I'm already a very popular First Lady," Ethel said, as they zoomed through the terminal building, "but I have plans for becoming even more popular!"

"I can hardly wait to find out what they are," Lulu muttered. She was holding on tight to keep from falling off the golf cart.

"This is fun, Ethel!" Wong shouted.

"Yeah," said Dinky. "We've really been looking forward to this visit."

"I'm sorry, little dogies, but we're not gonna have a whole lot of time to visit this round-up," said Ethel. "This old gal's gotta git back to her cheerleading practice."

"*Cheerleading* practice?" exclaimed Dinky, Lulu, and Wong in unison.

"You got it," said Ethel. "The big game's starting in just a couple of hours!"

"The *big game*?" exclaimed Dinky, Lulu, and Wong in unison again.

"Yeah!" said Ethel. "It's the annual football shoot-out between the Longhorns of the University of Texas and the Sooners of the University of Oklahoma!"

"You mean I came all this way just to see a *football* game?" said Lulu.

"This isn't just any football game, girlie," said Ethel. "The reputation of our great state hangs on the outcome!"

"Oh, brother," said Lulu.

The golf cart came to a screeching halt at the exit from the airport.

A big black limousine with a big white star on the door and a huge Texas flag attached to the radio antenna stood just outside.

A driver dressed in cowboy clothes was leaning against it.

Ethel hopped off the golf cart and said, "Here's our ride to the Cotton Bowl!"

"The *cotton boll*?" said Dinky, Lulu, and Wong.

"Boy, you guys don't know anything about Texas, do you?" said Ethel. "What do they teach you in geography back there in Washington, D.C.?"

"Well, uh . . ." Dinky started to say.

But Ethel said, "The Cotton Bowl is where they play the big game. It's also where we're practicing our cheers. Come on!"

Everybody piled into the limousine and the driver roared away from the curb.

Cars pulled to the side of the road, as the big black limousine raced toward Dallas and the Cotton Bowl.

"How are things back at the Secret Code Service?" asked Ethel, as they roared along.

"We can hardly keep up with all the work we have," said Lulu. "Frankly, we shouldn't even be here."

"Actually, we haven't had any clients since you moved to Texas," said Wong.

Lulu gave him a dirty look.

Dinky cleared his throat. "Uh, Ethel," he said, "what's this mysterious problem you wanted us to help you solve?"

They all looked expectantly at Ethel.

"Well, you see," began Ethel, "for my seventy-seventh birthday, the Governor appointed me Head Cheerleader of the University of Texas. I want to be the best cheerleader this state has ever had!"

"Well, that sounds great, Ethel," said Dinky, "but where do we fit in?"

"I need you guys to help me with my cheers," said Ethel.

"Cheers!" said Lulu. "I'm not a cheerleader, I'm a spy!"

"I don't mean you have to *cheer*," said Ethel. "I just need some help putting the cheers into code."

Dinky, Lulu, and Wong looked puzzled.

"You're good at code work," said Wong. "Why do you need us?"

"Right!" said Dinky. "You were always able to decode your sister Emma's diary back in Washington."

Ethel hung her head. "That's not something I'm proud of," she said. She looked up. "I just can't have the

Governor find out about my shady past. I really do need your help!''

''Well, sure, Ethel,'' Dinky said, ''if you put it that way . . . whatever we can do, we'll do . . .''

''You know we usually charge money for this, don't you?'' said Lulu.

''Oh, come on, Lulu,'' said Dinky. ''I think we can do this for free, don't you?''

''Free?'' said Lulu. ''*Free?* You expect me to give away my knowledge for *free*?''

Dinky sighed. Then he turned to Ethel. ''Our fee is normally five dollars per secret cheer,'' he said. ''One third of five dollars is a dollar sixty-six.''

''A dollar sixty-seven rounded off!'' shouted Lulu.

Dinky gave her a dirty look. ''Oh, okay, a dollar sixty-seven rounded off,'' he said. He turned back to Ethel. ''We'll only charge you Lulu's part of the fee. Agreed?''

''Agreed,'' said Ethel.

''Now, then,'' said Dinky, ''what was it you wanted us to do?''

''We're here, Miss Ethel!'' shouted the driver.

Everybody looked out the windows of the limousine. A huge football stadium with a huge cotton boll painted on the outside loomed before them.

''Isn't it magnificent?'' said Ethel.

''It sure is,'' said Wong.

''Yeah,'' said Dinky. ''My dad would love this!''

Lulu didn't say anything. She was busy redividing three into five dollars.

''And this will be the scene of my greatest triumph,'' added Ethel. ''The whole state of Texas will be proud that I am their First Lady!''

"We'll help you any way we can," said Wong.

But as they all piled out of the limousine and started up the ramp to the stadium, Dinky was wondering what new challenge lay ahead for the Secret Code Service.

Chapter Two

When they got inside the stadium, Dinky saw seventy-five thousand people in the stands. "I thought you said it was a couple of hours before the game," he said to Ethel. "Why are these people here so early?"

"Are you kidding me?" said Ethel. "Some of these people have been here since last night. You have to get here early if you want to get a good seat."

Dinky turned and looked out onto the football field. Underneath one of the goalposts, he saw ten boys and girls. They were all dressed exactly like Ethel and were standing in a line. "Who are all those people over there?" he asked.

"They look like spies to me," said Lulu.

"Naw," said Ethel, "that's just the rest of the University of Texas cheerleaders. Come on, I'll introduce you."

Dinky, Lulu, and Wong followed Ethel out onto the playing field.

"Hi, gang!" shouted Ethel.

"Hi, Miss Ethel!" shouted the cheerleaders.

"I want you to meet my friends Dinky, Lulu, and Wong," said Ethel.

"Howdy, Dinky, Lulu, and Wong!" shouted the cheerleaders. "How yaw'll?"

"What'd they say?" asked Wong.

But before Ethel could answer, the cheerleaders started doing a cheer.

When they finished, Ethel said, "This is Betsy and Bobby and Trixie and Tray and Prissy and Peety and Sugar and Sammy and Debbie and Donny!"

Dinky and Wong waved.

Lulu rolled her eyes. "I don't believe this," she muttered.

Dinky gave her a dirty look.

"Dinky, Lulu, and Wong are friends of mine from Washington, D.C.," said Ethel. "They own and operate the famous Secret Code Service. They encode and decode secret messages for spies. We need their help."

"How come, Miss Ethel?" asked Trixie.

"You know what those scheming University of Oklahoma cheerleader spies did to us last year," said Ethel. "They stole every last one of our cheers. That's why we lost that football game, girlie!"

"Oh, yeah," said Sugar. "I forgot about that."

"Well, the Governor didn't forget about it," said Ethel. "That's why he's appointed me Head Cheerleader!"

The other cheerleaders hung their heads.

"But I've got a plan," Ethel continued. "We're going to practice each cheer in secret code. Those scheming University of Oklahoma cheerleader spies will steal them and take them back to their side and start yelling them. Then we'll switch back to the regular cheer. But those scheming University of Oklahoma cheerleader spies will

still be cheering in code. They won't know what the heck they're saying until it's too late. There's no way they can win this game!''

''We're with you all the way, Miss Ethel!'' shouted the cheerleaders.

''I can't believe I flew all the way from Washington, D.C., for this,'' said Lulu.

Wong looked at her. ''*You're* getting paid well for this job,'' he said. ''Quit complaining!''

Lulu inhaled sharply but didn't say anything.

Dinky was beginning to feel warm. He took off his jacket. Then he opened up his backpack and took out his copy of *The Complete and Total Book of All the Secret Codes That Have Ever Been Devised and That Ever Will Be Devised*. ''I'm ready, Ethel,'' he said. ''What do you want in code?''

''Why don't we start with something simple?'' said Ethel.

Lulu looked at the cheerleaders. ''That's the first thing that's made sense all day,'' she said.

Everybody ignored her.

''Our first cheer is 'GO, TEAM, GO!' '' said Ethel.

''Okay,'' said Dinky. He opened the codebook to the first page. ''The easiest code is probably just a simple reverse.''

''A simple *reverse*?'' said Ethel. ''I don't understand.''

''Oh, brother,'' said Lulu. ''She's totally lost it.''

Dinky paused and glanced at Lulu. He started to say something. But the look on Lulu's face stopped him. She was waiting for him. She actually wanted him to say something. She was *hoping* that he would say something.

He looked around. Ethel was staring at him. So was Wong. Even the cheerleaders were staring at him.

He made his decision. He would do nothing. He took a deep breath and said, "Yes, Ethel, all you have to do is reverse the letters of the clear message. 'GO, TEAM, GO!' would be 'OG, MAET, OG!' " Out of the corner of his eye, Dinky could see that Lulu was disappointed that he hadn't said anything to her.

"That sounds all right," said Ethel. She turned to the other cheerleaders. "Let's do the first cheer," she shouted. "Put your hands on your hips and shout 'OG!' "

The cheerleaders put their hands on their hips and shouted "OG!"

"Then," continued Ethel, "bring your hands over your heads and shout, 'MAET!' "

The cheerleaders brought their hands over their heads and shouted, "MAET!"

"Now, hold your hands out straight and shout 'OG!' again," said Ethel.

The cheerleaders held their hands out straight and shouted "OG!" again.

"Now, then, say this three times together," said Ethel. "Ready?"

"Ready!" shouted the cheerleaders.

"Positions!" shouted Ethel. "One . . . two . . . three!"

"OG, MAET, OG! OG, MAET, OG! OG MAET, OG!" they cheered.

"Great," said Ethel. "Now, let's look at the next cheer."

"Excuse me, Miss Ethel," said Debbie, "but what does 'OG, MAET, OG!' mean?"

Ethel looked at Dinky, Lulu, and Wong. "Poor thing," she said. "This heat must be getting to her." She turned back to Debbie. "Honey, it means 'GO, TEAM GO!' " she said.

"Well, wouldn't it be easier just to say 'GO, TEAM, GO!'?" asked Debbie.

"Well, of course it would, girlie," said Ethel, "but then those scheming University of Oklahoma cheerleader spies would know one of our most important yells. We can't have that! I want you all to yell 'OG, MAET, OG!' until I tell you to switch." Ethel turned back to Dinky. "Ready for the next one?" she said.

"I guess so," said Dinky.

Wong and Lulu sat down on the artificial turf.

"Are we having fun yet?" asked Lulu.

"What do you mean?" said Wong.

"I mean," said Lulu, "if we were back in Washington, D.C., we'd probably be encoding messages about guided missiles or poisonous gases!"

"The next yell is 'HIT 'EM HARDER!' " said Ethel.

Lulu turned to Wong. "I think I should charge double for this," she said.

"I'd settle for a dollar sixty-six," said Wong.

"A dollar sixty-seven rounded off!" corrected Lulu.

"Do you want the same type of code?" asked Dinky.

Ethel scratched her chin. "You know," she said, "those scheming University of Oklahoma cheerleader spies are kind of crafty. After 'OG, MAET, OG!' they might figure out a second yell in the same code. No, we'd better come up with something different."

Dinky began flipping through the pages of his codebook. "Well, we could do a transposition code," he said. "We'd have to write it out first, but then we could separate it so that you could yell it."

"Sounds good to me, little dogie," said Ethel.

"This Texas talk is driving me crazy," muttered Lulu.

"I'm sort of enjoying it," said Wong.

Ethel turned to the other cheerleaders. "At ease!" she shouted.

The cheerleaders all sat down on the artificial turf next to Lulu and Wong and started discussing the physics of cheerleading.

"The first thing you need to do," began Dinky, "is to count the number of letters in 'HIT 'EM HARDER!' There are . . ." He began counting. ". . . eleven. You don't count punctuation marks, like apostrophes and exclamation points. Then you determine the nearest multiple. Let's see, that's four times three. It has to be equal to or over the number of letters in the clear message.

"Now, then, that means we'll have four columns with three letters each. Or we could have three columns with four letters each . . . it really doesn't matter. There are all kinds of transposition codes, but let's try the diagonal right to left."

"I'm with you, partner!" said Ethel.

Lulu rolled her eyes.

Dinky handed Ethel a piece of paper. "Start on the left-hand side and write 'H,' " he said.

Ethel wrote down "H" on the left hand side.

"Next to it,' continued Dinky, "write 'I.' "

Ethel did as she was instructed.

"Then go back and put 'T' underneath the 'H.' " Dinky wrote in a "T." "Like this," he said:

H I
T

"Dinky, Dinky," said Ethel in an exasperated voice. "I can do it myself."

''Sorry,'' said Dinky. He sighed. ''You can see that the 'I' and the 'T' are now diagonal,'' he continued. ''Now you put the 'E' next to the 'I.' Then you write the 'M' underneath the 'I' and the 'H' underneath the 'T,' so that the message now looks like this'':

H I E

T M

H

Ethel compared what she had written to what Dinky had written. ''Got it!'' she said. ''Mine looks exactly like yours!''

''Good,'' said Dinky. ''If we continue to write the rest of the message diagonally right to left, we'll end up with'':

H I E A

T M R E

H D R

''But we need to fill out the columns, so we simply add a nonsense letter to the fourth column. All you have to do is start at the beginning of the regular alphabet with 'A' and you have'':

H I E A

T M R E

H D R A

"And that's the code."

Ethel looked at her code and then at Dinky's. "How are we going to yell that?" she asked.

"You can do it several ways," Dinky said. "You can take it apart column by column, either from side to side or from top to bottom or from bottom to top. It really doesn't matter."

"Let's do it from top to bottom," said Ethel.

"Okay," said Dinky. "That means the cheer would be 'HIEA TMRE HDRA!' "

"HIEA TMRE HDRA!" said Ethel. "That sounds all right. Those scheming University of Oklahoma cheerleader spies will never figure this one out." She turned to the cheerleaders, who were still discussing the physics of cheerleading, and yelled, "Positions!"

The cheerleaders jumped up and got into their positions.

"Ready!" shouted Ethel. "Hands to the side and shout 'HIEA!' "

The cheerleaders put their hands on their sides and shouted, "HIEA!"

"TMRE!" shouted Ethel.

"TMRE!" shouted the cheerleaders.

"HDRA!" shouted Ethel.

"HDRA!" shouted the cheerleaders.

"All together now!" shouted Ethel.

"HIEA TMRE HDRA!" shouted the cheerleaders.

Ethel had a gleam in her eye. "I'll be the greatest First Lady this state has ever had!" she shouted. "Those scheming University of Oklahoma cheerleader spies have met their match!" She turned to Dinky. "Let's do a third one," she said, "and let's do it in the same code."

"Whatever you say," said Dinky. "What's the cheer?"

" 'MASH THOSE LOSERS!' " shouted Ethel.

* * *

DINKY WILL ENCODE "MASH THOSE LOSERS!" AT THE BEGINNING OF THE NEXT CHAPTER, USING A DIAGONAL RIGHT TO LEFT TRANSPOSITION CODE. DO YOU THINK YOU CAN DO IT BEFORE HE DOES?

Chapter Three

"Okay," said Dinky, " 'MASH THOSE LOSERS!' in a diagonal right to left transposition code would be . . . " He began to write quickly. ". . . would be . . ."

M A H O

S T S O

H E S R

L E S A

Ethel looked at what Dinky had written. "Oh, drat it!" she said. "That doesn't look anything like what I wrote down. What went wrong?"

Dinky sighed. He looked at Lulu and Wong. "Would you two like to explain this?" he asked.

Wong shook his head.

Lulu laughed. "Actually, it's sort of fun watching you sweat," she said. "Besides, I'm not in the mood to show you up . . . *yet*!"

A slow hiss came out of Dinky's mouth. But he kept his cool and didn't say anything.

He turned back to Ethel. "Okay, Ethel," he began, "remember that the first thing you have to do is count the number of letters in the clear message. There are fifteen in 'MASH THOSE LOSERS!' "

"I got that," said Ethel. "I'm not dumb!"

"Ha!" said Lulu.

Dinky ignored her. "The closest multiple to fifteen is four times four," he continued, "because it either has to be equal to the number of letters in the clear message or *over* it."

"I got that, too," said Ethel.

"Then all you have to do is start in the upper left hand corner with 'M,' the first letter in the clear message, and write it diagonally, right to left," said Dinky. "You'll have four columns of four letters each."

"That's where I messed up," said Ethel. She looked again at what Dinky had written. "How are we going to yell *that*?" she asked.

"We'll have to do the same thing we did with the other one," said Dinky. "We'll have to take it apart."

"Well, let's take it apart, then," said Ethel.

Dinky looked at the message. "Why don't we take this one apart in side by side columns, from left to right?" he said.

"Sounds good to me," said Ethel.

"That would mean that the yell would be "MSHL ATEE HSSS OORA,' " said Dinky.

"MSHL ATEE HSSS OORA!" repeated Ethel. "That's great. Those scheming University of Oklahoma cheerleader spies won't know what the heck they're saying." She turned to the cheerleaders. "Positions!" she shouted.

The cheerleaders jumped to attention.

"We've got another great yell!" shouted Ethel. She began explaining it to them.

Dinky walked over to where Lulu and Wong were sitting. "This heat is getting to me," he said.

"I was noticing how it affects people's brains around here," said Wong. He looked at Lulu. Then he looked at Ethel and the cheerleaders. "I feel like I'm on another planet."

"What are we going to do now?" Lulu said. "These crazy yells are getting on my nerves."

Dinky looked at Ethel and the cheerleaders, then back at Lulu and Wong. "I don't know," he said. "What did you have in mind?"

But before anybody could answer, a football team dressed in orange and white rushed out onto the field toward Ethel and the other cheerleaders.

Ethel and the other cheerleaders went wild.

So did half of the people in the stadium.

Then another set of cheerleaders in red and white appeared, followed by another football team dressed in the same colors. They headed for the opposite side of the football field.

The other half of the people in the stadium started screaming.

"You know," said Lulu, "this weekend may not turn out to be such a waste of time after all."

"What do you mean?" asked Wong.

"Look to your right," said Lulu. "Look to your left. What do you see?"

Dinky and Wong looked to their right, then to their left. "*Football teams?*" they said.

Lulu shook her head. "You have to look beyond the

obvious,'' she said. ''Of course, you see football teams. But *everybody* sees football teams. Do you know what *I* see?'' she asked.

''Uh, no,'' said Dinky.

''Me, either,'' said Wong.

''I see *enemies*!'' said Lulu.

''Enemies?'' said Dinky and Wong in unison.

''Enemies!'' Lulu repeated. ''And where you have enemies, you have spies, and where you have spies, you have . . . *What?*''

''Secret codes!'' shouted Dinky and Wong.

''Bright boys,'' said Lulu. She looked around. At one end of the stadium, underneath the scoreboard, she saw a small white portable shed. It had a large open window on one side and a counter below the window. At the top of the window was a sign: CONCESSION STAND. ''Perfect!'' she said. She motioned to Dinky and Wong. ''Come on!''

Dinky and Wong followed Lulu to the edge of the playing field.

''Help me move this,'' Lulu said, pointing to the concession stand.

Together they pushed it closer to the sidelines.

''What are we doing?'' Wong asked.

''We are in the process of setting up the Dallas Branch Office of the Secret Code Service,'' replied Lulu. ''All we have to do is mark out CONCESSION STAND and write in SECRET CODE SERVICE and we're in business.''

''Oh, now I get it,'' said Dinky. He pulled a black marker from his backpack. ''This ought to work,'' he said. He marked out CONCESSION STAND. Above it, he wrote SECRET CODE SERVICE, DALLAS, TEXAS, BRANCH. Then he stepped back. ''Not bad,'' he said.

Lulu looked. "Of course, if we had been prepared for this, we could have done a more professional job," she said, "but I guess it'll do."

"Now, then, what next?" asked Wong.

Lulu looked toward both ends of the field. The two football teams were going through their drills. The cheerleaders were going through their yells.

"How will they even know we're here?" asked Dinky.

"Simple," said Lulu. "We'll tell them!"

"You mean just walk over and *tell* them?" said Wong.

"Of course," said Lulu. "Come on!"

The three of them headed for the University of Oklahoma football team, which was huddled together in the end zone closest to them.

They walked right up and joined the huddle.

"Men!" the coach was shouting. "There is going to be an end around play. When Bobbie Lee here says hut, hut, hut, Harry here'll center the ball to him. Bobbie Lee'll drop back and then he'll hand the ball off to Springfield here who'll run around the right end. Got it?"

"Uh, excuse me," said Lulu.

The coach and the players looked up.

"Hey, how'd that girl get in this here huddle?" said the coach. "And why aren't you two guys in uniform?"

"Actually, we're members of the Secret Code Service," explained Lulu. "I'm Lulu Hawthorne and this is Dinky Lakewood and Wong Chiang."

"How do you do, ma'am," said the coach. "I'm Coach Bolly and this here football team is the pride of Oklahoma!"

Dinky, Lulu, and Wong nodded.

"Was there something special that you wanted?" asked Coach Bolly.

"Well, you see, we've just opened a branch of our Washington, D.C.-based business here in Dallas," said Lulu. "In fact, if you'll look over there on the sidelines, you'll see our newly remodeled building."

Coach Bolly and the members of the University of Oklahoma football team looked.

"Oh, yeah," said Coach Bolly, "that's swell. But what has it got to do with us?"

"We encode secret messages," said Lulu.

"Yeah," said Dinky. "Football plays are one of our specialties."

"They are?" said Wong.

Lulu nudged him. "Oh, yeah," said Wong, "they are."

"I don't understand," said Coach Bolly.

"Boys, boys," said Lulu, "the way you're shouting out those plays you're running, anybody can hear you." She pointed toward the other end of the football field. "Even the players from the University of Texas," she added.

"Boo!" shouted the University of Oklahoma players.

"Well, what should we do?" asked Coach Bolly.

"It's simple," said Lulu. "Bring all your plays to us. We'll encode them for you at the very reasonable price of five dollars each. Then you'll be able to call them out in code. Those Longhorns down there won't know what you're doing."

"Yay!" shouted the University of Oklahoma players.

"How'll we know that you won't tell them what our plays are?" asked Coach Bolly.

"Are you kidding me?" said Dinky. "The motto of

the Secret Code Service is 'Your Secrets Are Our Secrets.' ''

''This is a great idea,'' said Coach Bolly. ''I was sure worried about this game. Those Longhorns had a spy in our camp all week and learned every one of our plays. But now we've got it in the bag, thanks to you guys!''

Lulu smiled. ''We'll be in our office over there on the sidelines whenever you're ready,'' she said.

Dinky, Lulu, and Wong headed off the field.

''I'm impressed,'' said Dinky.

''You have every reason to be,'' said Lulu. ''I'm very good!''

''What do we do now?'' asked Wong.

''We tell the University of Texas football team the same thing,'' said Lulu.

''That's right,'' said Dinky. ''We can't take sides.''

''Yeah,'' said Wong. ''We have our integrity to think of.''

''Actually, I was thinking about all the money we're going to make,'' said Lulu.

They walked to the opposite end of the football field. There they joined the University of Texas huddle in the end zone.

Just as the team was about to break the huddle, Lulu said, ''Allow me to introduce myself.''

''Huh?'' said the coach.

''I am Lulu Hawthorne of the Secret Code Service,'' Lulu continued. She nodded toward Dinky and Wong. ''And these are my assistants.''

''I'm not your assistant,'' said Dinky.

''Me, either,'' said Wong.

But Lulu gave them both a hard stare. Then she turned back to the coach.

"Pleased to meet you, ma'am," said the coach. "I'm Coach Farnsworth and these football players here are the pride of Texas!"

Lulu, Dinky, and Wong nodded.

"We're kind of busy now, though," said Coach Farnsworth. "We've got a football play to run."

"Actually, what we have to say will be much more important to you in the long run than one silly old play," said Lulu.

Coach Farnsworth looked stunned. He turned to the players. "This little lady seems serious," he said.

"Yeah, man!" said the University of Texas players.

"Let's hear what you have to say," said Coach Farnsworth.

Lulu pointed to the opposite end of the field. "Do you see that little white building down there?" she said.

Coach Farnsworth and the football players looked and squinted. "Yeah," they replied.

"Well, that's the Dallas Branch Office of the Washington, D.C.-based Secret Code Service," said Lulu. "We encode and decode secret messages. Football plays are one of our specialties."

"Wow!" everybody said.

"But why do we need that?" asked Coach Farnsworth.

"Because," said Lulu, "everything you're saying in this huddle can be heard down at the other end of this football field, where your mortal enemy, the University of Oklahoma, is practicing, that's why!"

"Grrrrrrrrrrrrrrrrr!" growled the University of Texas players.

"At the very reasonable price of five dollars each," continued Lulu, "we will put your football plays into

secret code so that only you will be able to understand them.''

''You got it, man!'' said Coach Farnsworth. ''Those Sooners had a spy in our camp all week and learned every one of our plays. Sign us up!''

Lulu smiled. ''Whenever you're ready,'' she said.

Then she and Dinky and Wong headed back to the branch office.

''We'd better hurry and set up everything,'' said Lulu. ''It won't be long before we're swamped with business.''

''How about right now?'' said Wong. ''Look behind us!''

They all turned around. Coach Bolly and Coach Farnsworth were coming toward them.

''Get ready, gang!'' said Dinky. ''Business is headed this way!''

Chapter Four

The two coaches arrived at the Secret Code Service counter exactly at the same time and stood shoulder to shoulder. Then they turned and glared at each other.

A referee rushed up behind them. "Are you ready to start the game, coaches?" he asked.

Coach Farnsworth turned. "It'll just take a couple more minutes, Wilbur," he said. "We're still getting our plays together."

"All right," said the referee. "I'll take an official's time-out." He blew his whistle.

"You're going to have to make this fast," said Coach Bolly.

Dinky could feel the tension. Were they up to this? he wondered. He opened his mouth to speak.

But Lulu said, "I assume that you gentlemen would like for me and my colleagues here to put your plays into secret code, so that you might have your quarterbacks call them out, in order that the opposing team will not understand what you're doing. Is that correct?"

Coach Farnsworth and Coach Bolly looked at each other and said, "Huh?"

Dinky rolled his eyes. "She's been in Washington, D.C., too long," he said. "It's affected the way she talks. Just tell us the plays you want put into code and we'll encode them for you."

"You talk my language, son," said Coach Farnsworth.

But Coach Bolly said, "I don't want to tell you while he's around!" He pointed to Coach Farnsworth.

"Oh, yeah?" said Coach Farnsworth, nodding toward Coach Bolly. "Well, I don't want to tell you while he's around, either!"

"No problem, gentlemen," said Dinky. He nodded toward Lulu and Wong. "We have two experts here in addition to myself. We'll be able to take care of all of your needs."

"Actually, I'm the only other expert here," said Lulu. "Wong just sort of runs errands."

Wong slowly exhaled, but he didn't say anything.

Dinky thought he noticed a tinge of red coming to Wong's face, though, and his lips starting to quiver some. "Lulu, why don't you take Coach Bolly to the other end of the counter," he said, "and I'll work with Coach Farnsworth at this end."

Lulu looked at Dinky, then she looked at Coach Bolly. "You realize, don't you, that when you get me, you're getting the best!" she said.

"That's what I'm paying for," said Coach Bolly, as he moved with Lulu to the other end of the counter.

"This way, please," said Dinky. He motioned to Coach Farnsworth and they moved to the far end of the counter.

"What do you want the 'errand boy' to do?" Wong asked.

Dinky sighed. "Just stay there in the center where you are," he said, "and register the customers." He looked at Lulu. "It's a very important job!" he shouted.

"Oh, sure," said Wong. He put his elbows on the counter and started pouting.

"Now, then," Dinky said to Coach Farnsworth, "let's get down to business. Show me the plays that you want me to put into code."

"Okay," said Coach Farnsworth. He rolled out a long piece of paper. "This first one here is called the 'EMPIRE STATE BUILDING' play," he said.

"That sounds interesting," said Dinky.

"It's a killer," said Coach Farnsworth. "We're lucky to have it."

"How does it work?" asked Dinky. He stifled a yawn. He didn't mean to be rude, but he really felt tired.

"Well, you see," explained Coach Farnsworth, "the two ends run out, then step over toward the center, then run out again, then step over toward the center again, then finally meet and run down the field side by side, and the quarterback throws the ball to one of them."

"I don't understand," said Dinky. "Why's it called the 'EMPIRE STATE BUILDING' play?"

"It's simple," said Coach Farnsworth. "If I drew out on paper what they're doing, it'd look like the outline of the Empire State Building in New York City!"

"Oh, yeah," said Dinky. But he was beginning to wonder what kind of mess they had gotten themselves

into. How in the world were they going to put all of this into code? How could they be successful and maintain the reputation of the Secret Code Service? "Uh . . . and your players know this play?" he asked.

"Sure, they know it," said Coach Farnsworth. "All Billie Joe Bascum, he's my quarterback, all he has to say is, 'EMPIRE STATE BUIILDING,' and my players know what to do."

"Oh, that'll be simple, then," said Dinky. He breathed a sign of relief. "All I need to do is encode 'EMPIRE STATE BUILDING' and then you have your quarterback repeat it at the line of scrimmage. The other players will *decode* the message in their heads before they run the play."

"How will they do that?" asked Coach Farnsworth.

"Well, *decoding* is the opposite of *encoding,*" said Dinky. "You see . . ." He stopped. "Let's go ahead and *encode* the message first," he said. "It'll be easier to understand how to *decode* that way."

"Okay," said Coach Farnsworth.

Dinky picked up his copy of *The Complete and Total Book of All the Secret Codes That Have Ever Been Devised and That Ever Will Be Devised* and started flipping through the pages. "Here's a good code," he said. "I think it'll work very well for this play."

"I'm counting on this to work," said Coach Farnsworth. "I don't want the University of Oklahoma to know what's going on!"

"Then this is the code for you!" said Dinky.

"Hut! Hut! Hut!" said Coach Farnsworth.

Dinky looked puzzled. "Excuse me?" he said.

"In football talk," said Coach Farnsworth, "that means take the ball and run with it!"

"Oh," said Dinky, "you mean go ahead and put the play into code."

"Yeah, that's it," said Coach Farnsworth.

"Well," began Dinky, "this code is actually similar to the ones the early Greeks used."

"You mean, like fraternities and sororities?" said Coach Farnsworth.

Dinky smiled. "No, I mean the *famous* Greeks," he said, "those people who lived a long time ago in Greece."

"Oh, *those* Greeks," said Coach Farnsworth. "Yeah, I remember reading about those guys once. They sure would have made some great football players, you know that?"

"I'm sure," said Dinky. "Well, anyway, the Greeks frequently used arithmetical figures for codes. One of their methods of substituting mathematical figures for letters was to block the alphabet into a square. Of course, this meant that they would have to leave out a letter."

"Why's that?" asked Coach Farnsworth.

"Well, remember that there are twenty-six letters in our alphabet," said Dinky, "and twenty-six doesn't have an even square root."

"Oh, yeah," said Coach Farnsworth.

"But there's an even square root for twenty-five," said Dinky. "It's five times five, and that means that only one letter would have to be left out of the alphabet for it to be a perfect square."

"That's really clever," said Coach Farnsworth.

Dinky smiled. "So that means that we can have five columns of five letters each," he continued, "like this." He wrote out the alphabet:

A	F	L	Q	V
B	G	M	R	W
C	H	N	S	X
D	I	O	T	Y
E	K	P	U	Z

"Man, it is a perfect square, isn't it?" said Coach Farnsworth.

"It sure is," said Dinky. "In this alphabet, I left out the letter 'J.' You could leave out the letter 'U' instead, but 'J' and 'U' are usually the only letters that cryptologists leave out."

"Well, what if the message you want put into code has a 'J' or a 'U' in it?" asked Coach Farnsworth. "What do you do then?"

"That's easy," said Dinky. "You just let 'I' serve for both 'I' and 'J.' If I had left out 'U,' then I would have just let 'V' stand for 'U.' They both sort of look like each other, anyway."

"Hey, man, that's a great idea," said Coach Farnsworth. "Did you learn this in school?"

"Actually, I just sort of trained myself," said Dinky.

"Dinky!" Wong called. "This guy over here wants to buy some popcorn!"

Dinky looked up. "I'm sorry, sir," he said, "but we don't sell popcorn here. This is the Secret Code Service."

The man looked around. "That's funny," he said. "This is where I've always bought popcorn before. What happened? Did that other place go out of business?"

"Uh, well, sort of," Dinky replied.

"Do you have any hot dogs, then?" the man asked.

"We don't have any hot dogs, either," said Dinky. "We don't have any kind of food for sale."

"I sure am hungry," said the man.

"Well, I'm . . ." Dinky started to say.

But the referee rushed up again. "Coach Farnsworth, the official's time-out is up," he said. "Let's play ball!"

Coach Farnsworth turned. "Now listen, Wilbur," he said to the referee, "you'll just have to take another time-out because I'm not ready to play ball yet!" He nodded toward Dinky. "This young man here is not through putting my plays into secret code."

The referee blew his whistle. "Okay, coach," he said. Then he ran back out onto the field.

Coach Farnsworth turned to Dinky. "Could you sort of hurry it up, son?" he said.

"Well, do you know where I could get some popcorn, then?" asked the man standing in front of Wong.

Dinky sighed. "I'm sure that somewhere around here there is somebody who'd love to sell you a box of popcorn," he said, "but I don't know where he is!"

"Well, you don't have to get nasty about it," said the man. "Boy, you people sure aren't as nice as the people who sold popcorn were. They were *really* nice. In fact, they usually let me have some of their day-old popcorn for free." Then he turned and left.

Dinky looked back down at the paper he had been writing on. "Now, where was I?" he said.

"You were talking about fraternities and sororities," said Coach Farnsworth.

"Huh?" said Dinky. "Oh, well, not exactly, but

anyway . . . so if we use this code, then each letter of the clear message will be indicated by numbers that you write to the side of and above the squared alphabet'':

	1	2	3	4	5
1	A	F	L	Q	V
2	B	G	M	R	W
3	C	H	N	S	X
4	D	I	O	T	Y
5	E	K	P	U	Z

''All you have to do is find the letters of the clear message, then look to the side and above for the code numbers.''

Coach Farnsworth looked out onto the football field. ''Okay, okay, I got that, but what would 'EMPIRE STATE BUILDING' be?'' he said.

''Dinky!''

Dinky looked up. Ethel was standing at the counter with her hands on her hips.

''What's wrong now, Ethel?'' Dinky asked. ''I'm awfully busy. Is it important?''

''Is it important? Of course, it's important!'' Ethel said. ''Those scheming University of Oklahoma cheerleader spies stole our first yell in code just like I thought they would, but they figured it out and now they're over there on their side yelling, 'GO, TEAM, GO!' Can you

believe it? They've got those crazy people from Oklahoma worked up into a frenzy!''

''Well, what do want me to do about it, Ethel?'' asked Dinky.

''I want you to give me some harder codes, that's what!'' said Ethel.

''Oh, okay,'' said Dinky, ''but you'll have to wait a minute.''

''It'd better not take too long,'' said Ethel, ''or the Governor is going to be *real* mad!''

''Could you sort of hurry it up, son?'' Coach Farnsworth said. ''You're taking an awful long time with this!''

''Hey, coach!'' shouted the referee. ''Do you need a third official's time-out? The people in the stadium are getting kind of restless!''

''One more, Wilbur!'' shouted Coach Farnsworth.

''I'm waiting patiently, Dinky!'' shouted Ethel. She had begun to tap her orange cowgirl boots against the artificial turf.

Dinky looked back down at the message he was encoding. ''Using the Greek Arithmetical Table to encode 'EMPIRE STATE BUILDING,' '' he said, '' 'E' equals 51, 'M' equals 23, 'P' equals 53, 'I' equals 42, 'R' equals 24, and 'E' equals 51, so 'EMPIRE' would be '51-23-53-42-24-51.' ''

''Say, man, that's just like a regular call for a football play,'' said Coach Farnsworth. ''This is great! Could I do the rest of it?''

''Okay,'' said Dinky. ''Find the letter you want in the squared alphabet, then look at the vertical number first, and then at the horizontal number, and then put the two together.''

''Got you!'' said Coach Farnsworth. '' 'S' equals 34,

'T' equals 44, uh, uh, uh . . .'' he stammered. ''Why don't you do the rest of it? This is getting a little hard for me.''

'''Okay,'' said Dinky. '' 'A' equals 11, 'T' equals 44, and 'E' equals 51, so 'STATE' would be '34-44-11-44-51.' ''

''This is wonderful,'' said Coach Farnsworth. ''Could you do 'BUILDING,' too?''

''Sure,'' Dinky said. He looked at the alphabet. '' 'BUILDING' would be . . . '21-54-42-13-41-42-33-22.' The whole message together, then, would be '51-23-53-42-24-51 34-44-11-44-51 21-54-42-13-41-42-33-22!' ''

''I just thought of something,'' said Coach Farnsworth. ''How are my football players going to be able to *decode* that?''

''Remember that decoding is the opposite of encoding,'' said Dinky. ''I encoded the message by using the clear alphabet letters to find the code numbers. Your players will use the code numbers to find the clear alphabet letters.''

''Great,'' said Coach Farnsworth. He handed the long piece of paper to Dinky. ''Here's the rest of our plays,'' he said. ''Put them into code for me and send them in from the sidelines.'' Then he turned and started out onto the playing field.

''Uh, excuse me!'' Dinky called. ''That'll be five dollars!''

Coach Farnsworth turned. ''Just send the bill to the Athletic Department at the University of Texas in Austin!'' he shouted. Then he ran out onto the field.

Dinky wrote out a bill and filed it in his backpack.

''Are you ready *now*?'' said Ethel.

"Yes, Ethel," said Dinky, "just give me the new cheer."

"Boy, that was a piece of cake!" said Lulu. She had come over to where Dinky and Ethel were standing. "That University of Oklahoma football coach thinks I am absolutely brilliant. Of course, he's quite right."

"I guess this is going to work out after all," said Dinky, "having both of us encode secret messages."

"Of course, it is," said Lulu. "Coach Bolly gave me a long list of their plays to encode. He wants me to send them in from the sidelines during the game."

"Hey, that's exactly what Coach Farnsworth wants *me* to do," said Dinky.

Lulu took a deep breath. "Oh, it's so good to be back in business," she said. "Can't you smell it? It's the smell of the spy business!"

Dinky looked around. "Actually, I think it's the smell of dirty sweatsocks," he said.

Lulu frowned.

"Dinky! My code! Hurry up!" said Ethel. "Those scheming University of Oklahoma cheerleader spies are probably already on our side of the field just waiting to steal another one of our cheers!"

"Okay, Ethel, what's the cheer?" asked Dinky.

" 'BLOCK THAT KICK!' " shouted Ethel.

"Hey, Dinky, are we selling candy bars?" shouted Wong.

"No, we're not selling those either, Wong!" Dinky shouted back.

"Well, what are you selling, then, fella?" shouted a woman. She was standing at the counter in front of Wong.

"We're not selling anything!" Dinky shouted.

"Yes, we are!" shouted Lulu. "We're selling secrets!" She looked at the woman. "This is the famous Secret Code Service," she said. "Do you have a secret message you want encoded or decoded? It'll only cost you five dollars and our work is guaranteed."

"All I want is a candy bar," said the woman. "I've been coming to these games for over forty years and I always buy my candy bars here. What happened to the candy bars?"

Dinky sighed. "I think they're selling candy bars at the other concession stand," he said.

"Well, why didn't you say so in the first place?" said the woman. Then she stormed off.

Dinky looked back at Ethel. "I've just used a very good code for the University of Texas coach," he said, "and I think it might work very well for you."

"Well, what is it?" Ethel demanded.

"It's a mathematical code used by the ancient Greeks," replied Dinky.

"Hey," said Lulu, "what a coincidence! That's the same code I just used with Coach Bolly."

Dinky looked up. "Oh, really?" he said.

"Yeah, the one where the alphabet is blocked to a square, with five vertical columns and five horizontal columns, and there are numbers at the top and along the side," said Lulu. "I even explained how his players were supposed to *decode* it at the line of scrimmage."

Dinky was beginning to feel sick. "What letter did you leave out of the alphabet?" he asked.

" 'J,' " said Lulu. "I always leave out the letter 'J.' Why do you ask?"

Dinky was beginning to perspire. Oh, it couldn't be, he thought. It just couldn't be. He looked at Lulu. "Uh,

what was the football play, if I might ask that?'' he said.

''Oh, some silly play he must have just made up,'' said Lulu. ''He called it the 'EMPIRE STATE BUILDING' play.''

''Oh, no,'' said Dinky. ''That's exactly what Coach Farnsworth wanted me to encode!''

''You mean we encoded the same play for them?'' said Lulu.

''I think we did!'' said Dinky.

''I wonder which team stole it from the other team?'' said Lulu.

They both turned toward the playing field.

Billie Joe Bascum, the University of Texas quarterback, had just walked up to the center. He looked first to his left, then to his right. Then he said, ''Fifty-one, twenty-three, fifty-three, forty-two, twenty-four, fifty-one, thirty-four, forty-four, eleven . . .''

The referee blew his whistle. *''Delay of game penalty!''* he shouted. *''Five yards!''* He stepped off five yards against the University of Texas.

The two teams lined up again.

Billie Joe Bascum walked up to the center again. Then he looked to his right. Then he looked to his left. Then he said, ''Fifty-one, twenty-three, fifty-three, forty-two, twenty-four, fifty-one, thirty-four, forty-four, eleven, forty-four, fifty-one, twenty-one, fifty-four, forty-two, thirteen, forty-one . . .''

The referee blew his whistle again. *''Delay of game penalty!''* he shouted. *''Five yards!''* He began stepping off another five yards against the University of Texas.

Coach Farnsworth was standing on the bench on the Texas side of the field, looking at Dinky.

Dinky saw him and shrugged his shoulders.

"I simply cannot wait any longer for my code, Dinky Lakewood!" Ethel said. "Look how we're losing this game. We're going backwards! I need to get back so those scheming University of Oklahoma cheerleader spies can steal another one of our cheers in code and then we can switch and work that Texas crowd up into a frenzy. I have to have it *now*!"

"Okay, Ethel," said Dinky.

DINKY WILL ENCODE "BLOCK THAT KICK!" AT THE BEGINNING OF THE NEXT CHAPTER, USING THE GREEK ARITHMETICAL TABLE. DO YOU THINK YOU CAN DO IT BEFORE HE DOES?

Chapter Five

Ethel was wringing her hands and looking out onto the football field. The University of Texas team kept being penalized for delay of game. They had already been penalized forty yards.

Dinky looked up and saw Coach Farnsworth coming toward them. He didn't look too happy.

"Well," said Ethel, "do you have my code yet?"

"Here it is," said Dinky. " 'BLOCK THAT KICK,' using the Greek Arithmetical Table, is '21-13-43-31-52 44-32-11-44 52-42-31-52!' "

Ethel smiled. "I bet those scheming University of Oklahoma cheerleader spies will never figure that one out," she said. "TWENTY-ONE, THIRTEEN, FORTY-THREE . . . It sounds snappy, too, just like a good cheer should. Yeah, Dinky, I think you've outdone yourself this time, partner." She started to leave.

"Just one minute!" Lulu shouted.

Ethel stopped and turned.

"What's wrong, Lulu?" Dinky said.

"Oh, it's just a little matter of six dollars and sixty-eight cents for *four* encodings, that's all," said Lulu. She gave Ethel a hard stare.

Ethel unzipped her orange sequined handbag and took out six dollars and sixty-eight cents. Then she laid it on the counter in front of Lulu. "Don't let it ever be said that the First Lady of Texas doesn't pay her bills," she said.

Lulu picked up the money and started counting it.

"It's all there, honey," said Ethel.

"It's okay, Ethel, go on and start the cheer," said Dinky. "I'll take care of things on this end."

Ethel started off again.

"It's all here!" Lulu shouted after her.

"You shouldn't treat her that way, Lulu," said Dinky. "We're her guests."

"This is strictly business, Dinky Lakewood," said Lulu, "and if you don't understand that, then you have no business being in business!"

"Hey, Dinky!" Wong called. "Do we have any ice cream?"

Dinky looked up. Wong was still at the center of the counter. This time, three little boys were standing in front of him.

"Wong, how many times do I have to tell you that we don't have anything to eat," Dinky said.

"Well, I know you *said* that," said Wong, "but all these people keep coming up here to order food!"

"Just tell them they're in the wrong place," said Dinky.

Coach Farnsworth finally got to the counter. "We've got a slight problem," he said. "That code you gave me made us lose forty yards. We can't have that. And you know something else? I'd have sworn that those University of Oklahoma players knew *exactly* what we were

going to run! I thought you said if you put these plays into code they wouldn't know what we were doing.''

''I'm sure it was just a coincidence,'' said Dinky.

''Yeah, I'm sure it was,'' said Lulu.

''Well, no matter, we went ahead and kicked,'' said Coach Farnsworth, ''and now the University of Oklahoma has the ball. But I think you'd better put those other plays I gave you into some other code.''

''Actually, that's what I was planning to do,'' said Dinky.

Coach Farnsworth shook his head. ''Boy, that sure was strange about that 'EMPIRE STATE BUILDING' play,'' he said. ''That was one of our best plays, too!''

''Well, you know what they say about brilliant minds,'' said Lulu.

Coach Farnsworth looked puzzled. ''Uh, not really,'' he said. ''What do they say?''

Lulu rolled her eyes.

''The second play on the list you gave me is 'HAIL TO THE MIGHTY STATE,' '' said Dinky. ''Is that the one you want encoded next?''

''Yeah,'' said Coach Farnsworth. ''It's a line from the Pledge of Allegiance to the Texas flag. You see, the players all line up in the formation of the Texas flag, two stripes and a star. Then the star goes out for a pass. The quarterback breaks out from one of the stripes and throws the ball to the star. Fools 'em every time!''

''So if we put 'HAIL TO THE MIGHTY STATE' in code, then the rest of the players will know what the play is from what the quarterback says?'' asked Dinky.

''You got it!'' said Coach Farnsworth.

''This is all very interesting,'' said Lulu. ''I always

thought football was difficult. Quite frankly, I think I'd be very good at calling these plays myself."

Coach Farnsworth looked at Lulu. "You look tough enough to be a football player," he said. "You need to work out a little with weights, but give me a call when you're thinking about college."

Lulu inhaled sharply but didn't say anything.

Coach Farnsworth turned to Dinky. "Do you have something for me, young fellow?" he said.

"I think so," said Dinky. He was looking through his codebook. "I think we'll use a variation of the Gronsfeld Table. This is ten alphabets under the clear alphabet, each one slid to the left one letter from the preceding alphabet and numbered with key letters down the side from zero to nine":

	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
0	B C D E F G H I J K L M N O P Q R S T U V W X Y Z A
1	C D E F G H I J K L M N O P Q R S T U V W X Y Z A B
2	D E F G H I J K L M N O P Q R S T U V W X Y Z A B C
3	E F G H I J K L M N O P Q R S T U V W X Y Z A B C D
4	F G H I J K L M N O P Q R S T U V W X Y Z A B C D E
5	G H I J K L M N O P Q R S T U V W X Y Z A B C D E F
6	H I J K L M N O P Q R S T U V W X Y Z A B C D E F G
7	I J K L M N O P Q R S T U V W X Y Z A B C D E F G H
8	J K L M N O P Q R S T U V W X Y Z A B C D E F G H I
9	K L M N O P Q R S T U V W X Y Z A B C D E F G H I J

"It looks pretty interesting," said Coach Farnsworth, but how does it all work?"

"Well, the numbers along the side of the alphabets are called *key numbers,*" said Dinky. "You determine the code by using a key number."

"How?" asked Coach Farnsworth.

"You pick a number between zero and nine," said Lulu, "and you use that alphabet as your code alphabet. It's simple."

Dinky looked at her. "Uh, actually, Lulu, I'm supposed to be explaining this," he said.

"Be my guest," Lulu said.

Dinky looked at Coach Farnsworth. "Do you have a lucky number between zero and nine?" he said.

"Well, I was born on the ninth day of the ninth month," said Coach Farnsworth. "Nine has always been a lucky number for me."

"Dinky, where did you say they were selling popcorn?" Wong shouted.

"I don't know, Wong," Dinky said. "Just somewhere!"

"Well, this guy here insists that I sell him a box of popcorn," said Wong.

"Well, I'm sorry, sir," said Dinky, "but we don't have any popcorn to sell!"

The man moved over to where Dinky was standing. "Why don't you like me?" he said. "What have I ever done to you? Just because you don't like me doesn't mean that you shouldn't sell me a box of popcorn. I have money. My money is just as good as anybody else's. You know, don't you, that there's a law against this sort of thing, and I may just sue!"

"Sir, I'm sorry," Dinky said. "If we had any popcorn, we'd be more than happy to sell you as many boxes as you could eat, but you see, we're all spies here and spies don't eat popcorn!"

The man's eyes opened wide. "You people are crazy, you know that?" he said. Then he stalked off.

Dinky sighed. "Okay," he said, "we'll use Alphabet

9 to encode 'HAIL TO THE MIGHTY STATE.' So go back up to the clear alphabet and find 'H,' the first letter in the clear message, and then look down the column until you reach Alphabet 9. You can see that 'H' equals 'R.' Then you go back up to the clear alphabet and find 'A,' the second letter in the clear message, and go down the column until you reach Alphabet 9. You'll see that 'A' equals 'K.' If you continue doing this, you'll see that 'I' equals 'S' and 'L' equals 'V,' so 'HAIL' equals 'RKSV.' "

"RKSV," said Coach Farnsworth. "That's not too bad. I think old Billie Joe can say that. What's the rest of the play?"

Dinky found the rest of the letters of 'HAIL TO THE MIGHTY STATE' in the clear alphabet, then he went down the column until he reached Alphabet 9. " 'TO THE MIGHTY STATE' would be . . . 'DY DRO WSQRDI CDKDO,' " he said, "and the whole message together would be . . . 'RKSV DY DRO WSQRDI CDKDO.' "

Coach Farnsworth looked toward the playing field. The University of Oklahoma had just been penalized for the tenth time for delay of game. "You know," he said, "they seem to be having the same trouble we did. I can't believe they'd be dumb enough to run the same play. I guess it was just a coincidence."

"I'm sure it was," said Lulu.

"Well, I'd better get back over there," said Coach Farnsworth. "The University of Oklahoma is just about ready to punt the ball. Go ahead and put the rest of those plays into code, then run them out to the huddle when they're ready."

"All right," said Dinky. "We'll put them into a

variety of codes, you know, just sort of mix them up, so that the opposing team won't be able to figure them out, then we'll run them in from the sidelines from time to time.''

Lulu rolled her eyes.

''Boy, you sure do know your football,'' said Coach Farnsworth.

Dinky smiled. ''My dad watches the Redskins a lot on television back in Washington, D.C.,'' he said.

''That's important,'' said Coach Farnsworth. ''He's bringing you up right. You be sure and look me up when you're thinking about college, you hear?'' Then he turned and began running across the field.

Lulu looked at the list. ''Boy, we've got our work cut out for us,'' she said. ''One . . . two . . . five . . . fifteen plays in all . . . times five dollars each. We're going to make a bundle off these rich Texans!''

''You sure are greedy, Lulu,'' said Wong. He had just come up to where they were standing.

''Aren't you supposed to be registering customers or somebody, Wong?'' Lulu said.

''I haven't had any *real* customers,'' said Wong. ''I've only been getting people who want something to eat.''

Suddenly, above them, a huge helicopter began to descend.

''Look at that!'' shouted Dinky. ''What's going on?''

''I'd recognize that helicopter anywhere,'' said Wong. ''I see it flying over Washington, D.C., all the time!''

''It belongs to the President of the United States!'' said Lulu. ''I knew sooner or later he'd have to use our services and he's come all the way to Texas to let us

encode and decode his secret messages! Now, that's a reputation for you!''

Dinky watched as the helicopter descended. Could it be possible? he wondered.

The helicopter landed on the fifty-yard line.

Men began rushing from the sidelines out to the helicopter.

The University of Texas band began playing, ''Hail to the Chief.''

The President of the United States stepped off the helicopter and was immediately rushed to a viewing stand that had been hastily assembled on the opposite end of the football field from the Secret Code Service.

''Maybe he doesn't need anything encoded or decoded right now,'' said Lulu.

''That's probably it,'' said Dinky.

''Wouldn't it have been more convenient for him if they had put that viewing stand over here by us?'' said Wong. ''Now, if he wants us to do some work for him, he'll have to walk all the way around the football field.''

''Excuse me!''

Dinky, Lulu, and Wong looked up.

A man in a trench coat, dark glasses, and a hat pulled down over his face was standing at the counter.

''We're not selling popcorn,'' Wong said. ''You'll have to buy that somewhere else.''

The man pointed to the sign. ''Is this really a branch of the famous Secret Code Service in Washington, D.C.?'' he asked.

''Uh, yes, it is,'' Dinky replied. ''Are you familiar with our work?''

''Quite!'' said the man. ''My name is Ralph Langley. We in the Secret Service admire your work very much.''

''Secret Service!'' cried Dinky, Lulu, and Wong.

''Shhh!'' said Mr. Langley. ''You're not supposed to know I'm here.''

''What may we do for you?'' asked Dinky softly.

''The President of the United States is in need of all the football plays from both the University of Texas and the University of Oklahoma,'' said Mr. Langley. ''I understand you've been putting them into secret code for the respective teams.''

''How do you know that?'' asked Dinky.

Mr. Langley smiled. ''We have our ways,'' he said.

''Why does the President need the football plays?'' asked Wong.

''He needs to memorize them,'' said Mr. Langley.

''That seems a bit peculiar, doesn't it?'' said Lulu. ''I mean, why can't he just sit back and enjoy the game and be surprised like everybody else?''

Mr. Langley smiled again. ''The President has more in mind than simply watching the game,'' he said.

''Well, I'm sorry, but we have our integrity to think of,'' said Dinky. ''We simply cannot divulge our secrets and that includes the football plays of the University of Texas and the University of Oklahoma.''

''But it's in the national interest,'' said Mr. Langley.

''It's in our national interest to be honest in our work,'' said Dinky. ''Our clients expect it. In fact, they demand it. Our motto is 'Your Secrets Are Our Secrets!' That's why we have such a good reputation.''

''I respect that,'' said Mr. Langley, ''so would you mind if I hid one of my state-of-the-art electronic bugs around here somewhere so that I could listen in on your conversations?''

''What?'' said Dinky.

"It wouldn't work," said Lulu. "We sweep this place several times a day for bugs! We'd find it!"

"We in the Secret Service use only the latest *undetectable* state-of-the-art electronic bugs," said Mr. Langley. "You'd never find it!"

"Try us!" shouted Lulu.

"You're on!" shouted Mr. Langley.

"Wait a minute! Wait a minute!" shouted Dinky. "We can't have this!"

But Mr. Langley had already disappeared behind the Secret Code Service building.

Dinky turned to Lulu. "What were you talking about?" he said. "We don't have any electronic sweeping equipment. Look at the mess you've gotten us into!"

"Well, we should have some," said Lulu. "I knew this day would come and I knew you wouldn't be prepared, either!"

"Dinky!"

They all three looked up. Ethel was standing in front of the counter.

"Those scheming University of Oklahoma cheerleader spies figured out that last cheer and they've worked up that crazy Oklahoma crowd into a frenzy," Ethel said. "We're going to lose this game if you don't do something quick!"

"I just happen to have a good code for you," Dinky said. "It's a variation of the Gronsfeld Table. You use ten alphabets and a key number." He showed Ethel the Gronsfeld Table in his codebook.

"Say, that just might work," said Ethel.

"What's the cheer you want put into code?" asked Dinky.

" 'PUSH 'EM BACK! PUSH 'EM BACK! WAY BACK!' " said Ethel.

Lulu rolled her eyes.

"Okay," said Dinky, "all you have to do now is give me a number between zero and nine."

Ethel thought for a minute. "How about seven?" she said. "That's a lucky number for me."

"Seven it is, then," said Dinky.

DINKY WILL ENCODE "PUSH 'EM BACK! PUSH 'EM BACK! WAY BACK!" USING THE VARIATION OF THE GRONSFELD TABLE AND THE KEY NUMBER SEVEN AT THE BEGINNING OF THE NEXT CHAPTER. DO YOU THINK YOU CAN DO IT BEFORE HE DOES?

Chapter Six

"Okay," said Dinky, " 'PUSH 'EM BACK! PUSH 'EM BACK! WAY BACK!' using a variation of the Gronsfeld Table and the key number seven would be . . ." He began encoding the cheer. He worked quickly and quietly. Finally, he said, " 'XCAP MU JIKS! XCAP MU JIKS! EIG JIKS!' "

Ethel smiled. "If those scheming University of Oklahoma cheerleader spies figure this one out," she said, "I'm going over to *their* side!"

"That's a pretty rash statement, Ethel," said Dinky. "What would the Governor think about it?"

"Sometimes situations like this call for drastic measures," said Ethel. She took a dollar sixty-seven out of her purse and laid it on the counter. "See you later!" she said. Then she headed back toward the other University of Texas cheerleaders.

"What's the score of the football game now?" asked Wong.

Dinky looked at the scoreboard. "It's still zero to zero," he said. "Neither team has been able to move the ball . . . *forward*!"

"Thanks!"

Dinky, Lulu, and Wong looked up. Mr. Langley was standing at the counter. He had a big grin on his face.

"May we help you?" asked Lulu.

"You already have," said Mr. Langley.

"What do you mean?" asked Dinky.

"XCAP MU JIKS! XCAP MU JIKS! EIG JIKS!" said Mr. Langley.

"How'd you get that secret message?" demanded Lulu.

"I bugged your office," said Mr. Langley. "Man, this is just what the President needs, too!"

"No, it isn't!" said Wong.

"Wong!" Dink shouted. "You're not supposed . . ."

But Mr. Langley was already running across the field, dodging football players, headed for the presidential viewing stand.

"Boy, is he going to be surprised when he realizes that's not a football play but a cheer for the University of Texas cheerleaders!" said Wong.

"You said it," said Dinky. "But you almost jeopardized our integrity by telling him that!"

"Oh, sorry," said Wong. He looked around. "Well, what do we do now?"

"Shouldn't *you* be back at the center of the counter, registering customers?" said Lulu.

"I'd rather be doing this," said Wong.

"What we need to do is get started on encoding these football plays for the University of Texas and the University of Oklahoma," said Dinky. "We're getting behind."

"How should we handle this?" asked Wong. "Both coaches wanted us to encode them and then run them out to their huddles."

Lulu raised an eyebrow.

"Simple," said Dinky. "We'll encode the first one for Texas and then we'll encode the second one for Oklahoma."

"Why not the other way around?" demanded Lulu. "Why do you always put Texas first?"

"I don't always put Texas first," said Dinky. "It just came to mind first."

"See!" said Lulu. "I think we should do one of the Oklahoma plays first."

"All right, all right!" said Dinky. "What difference does it make?"

"Please to excuse me!"

The three of them looked up. A man was standing in front of the counter. He had on a trench coat, dark glasses, and a hat pulled down over his face.

"Are you from the Secret Service, too?" Lulu said.

"No, no," said the man. "I am Ivan Ivanovich of the Russian KGB. Ve have discovered through our intelligence netvork that your President has shown great interest in the University of Texas football plays. This discovery has brought me all the vay from Moscow to Dallas vhere I am hoping to determine vhat this information means."

"Really?" said Dinky, Lulu, and Wong.

"Really," said Ivan.

"Well, what is it that you want from us, Mr. Ivanovich?" Dinky asked.

"Please to call me Ivan!" Ivan said.

"All right," said Dinky. "What is it that you want from us, Ivan?"

"I vant to know all of the secret messages that you have been giving to the Secret Service," said Ivan. "It is my responsibility to know everything that your President knows."

"We never divulge information about our clients, Ivan," said Dinky. "Besides, how do you know we're giving secret messages to the Secret Service?"

"Ve have our vays," said Ivan with a smile.

"Well, we're sorry, Ivan," Lulu said. "We just can't tell you anything."

"Then I am sorry, too," said Ivan, "but I shall have to bug this establishment of yours."

"Oh, no, not again," said Wong.

"Vhat do you mean, 'again'?" said Ivan. "Has one of my comrades been here already?"

"Nothing!" said Dinky. He gave Wong a dirty look.

"I think I should inform you," said Lulu, "that we sweep this place daily for bugs, so there isn't a chance in the world that yours will work."

"Ha!" said Ivan. "I have the latest state-of-the-art electronic eavesdropping eqvipment. You vill never discover it!"

"Ha!" said Lulu. "Just try us!"

"Ha!" said Ivan. "I vill!" Then he disappeared.

"Can you believe this?" said Dinky. "We're going to have to get serious about this bugging problem. We can't have these bugs planted all over our building and still do our work!"

"What do you suggest?" asked Wong.

"We need to start *looking* for them," said Dinky.

"I am not a human sweeping device," said Lulu, "I am a trained cryptologist!"

Dinky looked at Wong. "In between registering customers," he said, "could you look for bugs?"

"What do they look like?" asked Wong.

"Well, I think they look like miniature microphones," said Dinky. "I don't know. Just look for *something* that looks like it doesn't belong here. At least that's better than doing nothing!"

"Oh, all right," said Wong. He got down on his knees and started crawling around the building.

"Excuse me!"

Dinky and Lulu looked up.

Debbie was standing at the counter. "Have yaw'll seen Miss Ethel?" she asked. "We need to ask her something real bad!"

"She was just here a few minutes ago," said Dinky. "We gave her a new cheer in code."

"Well, she gave us *that* cheer," said Debbie, "but it's not working our fans into a frenzy, and then she left again before giving us a better cheer."

Lulu rolled her eyes. "She's probably spying on those scheming University of Oklahoma cheerleader spies," she said.

"I guess so," said Debbie. "Well, we'll just keep using the cheers we have until she gets back, then." She waved goodbye and started running toward the University of Texas side of the field.

"What's the next Oklahoma football play?" asked Lulu. "We're beginning to get frantic signals from both of the coaches."

Dinky picked up the University of Oklahoma list of football plays. "The next one is called 'OKLAHOMA SHUFFLE,' " he said.

"What code should we put this one in?" Lulu asked.

Dinky thought for a couple of seconds. Then he began flipping through the pages of his codebook. "How about this one?" he said. He pointed to one of the codes in the book.

"The Porta Table?" said Lulu. "That's a hard one. Are you sure you know it well enough to encode a message in it?"

Dinky frowned. "Of course I do," he said, "and it's not really that difficult . . . if you're a *competent* cryptologist."

Lulu's nostrils flared. "Are you questioning my ability?" she said.

"No," said Dinky hurriedly, "I'm just saying that if you want to be a good cryptologist, you shouldn't let any code scare you."

"Who said *I* was scared?" demanded Lulu. "I was merely wanting to know if *you* were up to this."

"Well, let's just quit talking about it," said Dinky, "and start using it. That's the best test!"

He started writing:

AB ABCDEFGHIJKLM
NOPQRSTUVWXYZ

CD ABCDEFGHIJKLM
OPQRSTUVWXYZN

EF ABCDEFGHIJKLM
PQRSTUVWXYZNO

GH ABCDEFGHIJKLM
QRSTUVWXYZNOP

IJ ABCDEFGHIJKLM
RSTUVWXYZNOPQ

KL ABCDEFGHIJKLM
STUVWXYZNOPQR

MN ABCDEFGHIJKLM
TUVWXYZNOPQRS

OP ABCDEFGHIJKLM
UVWXYZNOPQRST

QR ABCDEFGHIJKLM
VWXYZNOPQRSTU

ST ABCDEFGHIJKLM
WXYZNOPQRSTUV

UV ABCDEFGHIJKLM
XYZNOPQRSTUVW

WX ABCDEFGHIJKLM
YZNOPQRSTUVWX

YZ ABCDEFGHIJKLM
ZNOPQRSTUVWXY

When he finished writing, he said, "Whew! I thought I'd never get through!"

"What'd I tell you?" Lulu said. "This is just not a code that you should use. It's far too complicated for these people. Only somebody with extensive training in espionage would be good at using it."

"I could use some extensive training in espionage," said Wong, "just in case somebody asks me about this code while I'm standing at the counter."

Lulu looked at him. "What are you doing back here?" she said. "I thought you were supposed to be looking for bugs."

"My knees hurt," said Wong. He looked at Dinky. "What about it?" he said. "Will you explain it to me?"

"Sure," said Dinky. "It's really not that difficult. It's made up of thirteen alphabets. The top half of each alphabet consists of the letters 'A' to 'M' and the bottom half consists of the letters 'N' to 'Z.' The second half is slid to the left one letter at a time in each succeeding alphabet. The alphabets are indicated by the key letters that appear on the left hand side of the table. Either of the two key letters may be used to indicate a particular alphabet when you're encoding a message. Of course, with this code, you have to have a *key word*."

Lulu looked at Dinky. "Sure, you can *explain* it," she said, "but can you *use* it?"

"Well, let's do 'OKLAHOMA SHUFFLE' and find out," said Dinky.

"What key word will you be using?" asked Wong.

Dinky thought for a minute. "How about 'TEXAS'?" he said.

"I bet that took a lot of thought," Lulu said.

Dinky ignored the sarcasm and began writing:

TEXASTEXASTEXASTEXAS

"You may repeat the key word as many times as you need to cover the clear message," he said. "Underneath the key word, I'll write the message":

TEXASTEXASTEXASTEXAS
OKLAHOMASHUFFLE

"Hey, it comes out even!" he said. "I only need to write 'TEXAS' three times. That's unusual. Sometimes you have to break the key word in the middle or even after the first couple of letters."

"Now, what do you do?" asked Wong.

"Well, you take the first letter in the key word, 'T,' and you find that alphabet," said Dinky. "It's the alphabet with the 'ST' in front of it. Then you find 'O' in the code alphabet, because 'O' is the first letter of the clear message. 'O' equals 'F.' You have to look *above* 'O' here to find the code letter 'F.' The next letter in the key word is 'E,' so we'll use the alphabet with 'EF' in front of it. The second letter in the clear message is 'K,' so we find 'K' in the code alphabet. 'K' equals 'Z.' Here, you look *below* 'K' to find 'Z.' "

"Is that all there is to it?" said Wong.

"Is that all there is to it?" mimicked Lulu. "If you think it's so easy to do this kind of work, then why don't you encode the rest of the message?"

Wong looked at Dinky. "All right with you?" he said.

"All right with me," Dinky said.

Wong began working furiously. Using the letters of the key word "TEXAS," he found the code alphabets with which to encode the clear message. Then he found the letters of the clear message in the code alphabets and looked above or below them for the code letters.

Finally, he said, " 'OKLAHOMA SHUFFLE' in the Porta Table with the key word 'TEXAS' is . . . 'FZWN-QFOY FQLUQYN'!"

"Excellent!" said Dinky.

"Just a minute!" said Lulu. "I want to verify this. He did that entirely too quickly!"

She began encoding the message. When she finished, she said, "Have you ever heard of beginner's luck?"

"Actually," said Wong, "I think it's correct because I'm so good."

"Ha!" said Lulu. "You just wait. Your lack of training will tell before we're through today . . . and I'll be there to pick up the pieces!"

"Thanks!"

Dinky, Lulu, and Wong looked up.

Ivan was standing at the counter, grinning.

"Thanks for *what*?" asked Dinky.

"FZWNQFOY FQLUQYN!" said Ivan. "I am now in the possession of a very important secret message for the President of the United States." Then he turned and started running toward the sidelines.

Dinky looked at Wong. "I can't believe this," he said. "Didn't you see *anything* when you were looking for those bugs?"

Wong shook his head.

"Of course he didn't," said Lulu. "He was too busy trying to prove he's better than he really is!"

"There's nothing wrong with trying to reach the top!" Wong shouted.

"Ha!" shouted Lulu.

"Oh, well, we can't do anything about it now," said Dinky. "We need to take this play out to the University of Oklahoma huddle."

"Well, come on, then," said Lulu. "Coach Bolly is signaling frantically from the sidelines."

The three of them started out onto the playing field toward the huddle.

But the referee blew his whistle. "Just where do you think you're going?" he shouted.

"We have an important message for the University of Oklahoma team," said Lulu.

"You know you have to be in uniform before you go out onto the playing field," said the referee.

"What?" said Dinky, Lulu, and Wong.

"You get back in that dressing room and put on those uniforms if you want to play in my game!" said the referee. He pointed toward the tunnel entrance. "I mean it!" he added.

Dinky, Lulu, and Wong turned and headed for the entrance to the dressing rooms.

"Is that guy serious about this?" Wong said.

"He sure acted like it," said Lulu.

"Well, we have to get this play to Coach Bolly," said Dinky. "He's counting on us. The integrity of the Secret Code Service is at stake. Come on!"

They headed down the tunnel. Finally, they reached the end. On one side a sign said UNIVERSITY OF OKLAHOMA DRESSING ROOM and on the other side the sign said UNIVERSITY OF TEXAS DRESSING ROOM.

"We need uniforms for both teams," said Dinky, "since we'll be going to both huddles."

"Where do we go first?" asked Lulu.

Dinky looked at her. "We'll get the Oklahoma uniforms first," he said. He opened the door to the Oklahoma dressing room and shouted, "Anybody in there?" When nobody answered, they all went inside.

They each picked out a helmet, shoulder pads, a shirt, pants, and shoes.

Then they crossed the tunnel to the University of Texas dressing room, where they got the same things.

"Now, let's hurry up and get dressed," said Dinky. "Coach Bolly needs this play right away."

They ran back up the tunnel to the Secret Code Service building and hurriedly began putting on the University of Oklahoma football uniforms.

The referee was standing at the sidelines. When he saw them, he said, "Now, you may go in!"

"Now?" said Dinky.

The referee looked out onto the field. "Yeah, your team's in a huddle," he said, "so go on in."

Dinky, Lulu, and Wong ran out onto the field and joined the University of Oklahoma huddle.

One of the players looked up. "Are you guys from the Secret Code Service?" he asked.

"Yes," said Lulu. "We have your encoded football play."

"I'm Bobbie Lee Barnes, the quarterback," said Bobbie Lee. "Coach Bolly said we should expect you. You guys ready?"

"Sure," said Lulu. "If you guys'll just gather around, we'll explain it to you."

"*Explain* it!" said Bobbie Lee. "You're supposed to *run* it!"

"*Run* it!" said Dinky. "What do you mean?"

But three of the players were already headed for the sidelines, and Bobbie Lee and the rest of the team were already at the line of scrimmage.

"Wait a minute!" shouted Dinky.

But the center was already down over the ball.

"Hurry up and call the play!" Bobbie Lee whispered.

Dinky looked down at the slip of paper he was holding in his hands. "FZWNQFOY FQLUQYN!" he shouted.

Then he looked up. The University of Texas players were coming right toward him. He dropped to the ground.

So did Lulu and Wong.

In an instant, they were all covered up by huge football players.

Dinky could hardly breathe.

Then he heard the referee's whistle. It sounded far away.

Then slowly all the players began to unpile off of him.

Dinky looked around. He felt dizzy. Lulu and Wong were still lying on the ground, moaning. He crawled over to them.

"What happened?" Lulu moaned.

"What happened?" Wong moaned.

"I'm not quite sure," Dinky said.

Bobbie Lee rushed up. "Coach Bolly says you're going to have to come up with another play," he said. "That one wasn't any good. He also wants to know if he has to pay for plays that don't work."

"Uh, forget it," said Dinky. "We'll work on another

one.'' He helped Lulu and Wong to their feet and they hobbled off the field to the Secret Code Service building.

''Do we have insurance?'' Lulu asked. ''Because if we don't, I'm planning to sue for damages.''

''*Whom* were you planning to sue?'' asked Dinky.

''I'll think of somebody!'' Lulu said.

They all looked back toward the other side of the field. Coach Farnsworth was signaling frantically toward them.

''What now?' Lulu said.

''We haven't taken the University of Texas any of their football plays yet,'' said Dinky.

''That's because we haven't encoded any for them,'' said Lulu.

''How are we going to tell Coach Farnsworth that we have a backlog and just haven't been able to encode any plays for him yet?'' asked Wong.

''We're not going to,'' said Dinky. ''We'll just encode a play for him in a hurry.'' He looked back out onto the field. The University of Texas had taken a time-out. ''If we work fast,'' he added, ''maybe our reputation won't suffer.''

''What's the next play on the Texas list?'' asked Lulu.

'' 'OVER THE RED RIVER TO GRANDMA'S HOUSE,' '' said Dinky.

''Well, let's just use the Porta Table,'' suggested Lulu. ''You seem to know it pretty well by now.''

Dinky sighed. He knew it wouldn't do any good to say anything nasty to Lulu. ''We'll need a key word,'' he said.

''How about 'CRAZY'?'' Wong said. ''That's the way I feel.''

"That fits," said Lulu.
"Whatever you say," said Dinky.

DINKY WILL ENCODE "OVER THE RED RIVER TO GRANDMA'S HOUSE" AT THE BEGINNING OF THE NEXT CHAPTER, USING THE PORTA TABLE AND THE KEY WORD "CRAZY." DO YOU THINK YOU CAN DO IT BEFORE HE DOES?

Chapter Seven

Dinky worked feverishly.

"The time out's almost over," said Lulu. "You'd better hurry up."

"I've got it," said Dinky.

"What is it?" asked Wong. "We all need to know it *very* well this time so we won't get mauled when we run it!"

" 'OVER THE RED RIVER TO GRANDMA'S HOUSE,' in the Porta Table, using the key word 'CRAZY,' is "AARF HVZ EQP DQIQF FG TFZMYZZG VGHGQ,' " said Dinky, "but I wouldn't worry about having to run this play, because that's not going to happen again."

"Well, it's about time you took a stand," said Lulu. "Your insurance coverage couldn't take too many more of my claims!"

"What do you want us to do?" asked Wong.

"Watch me!" said Dinky. He walked over to the referee standing on the sidelines. "I need to have a meeting with both head coaches," he said.

The referee blew his whistle. "Official's time-out!" he shouted.

Dinky, Lulu, and Wong quickly changed out of their football uniforms into their regular clothes, then they followed the referee out to the center of the field. They got there just as Coach Farnsworth and Coach Bolly arrived.

The referee nodded toward Dinky, Lulu, and Wong. "These three need a meeting with you guys," he said.

Coach Farnsworth said, "Is there a problem?"

"Uh, yes, sort of," said Dinky. "You see, when we told you that we would put your football plays into secret code, we didn't plan on playing the game for you, too."

"We are cryptologists," said Wong. "We are not football players."

"We will encode and decode messages for you and we will explain the procedures to you," said Lulu, "but we will not under any circumstances play football!"

"Oh, well, I'm sorry if there was a misunderstanding," said Coach Bolly. "We sure do want your services and we hope that you'll continue your excellent work for us."

"Right," said Coach Farnsworth. "We won't be able to win this game without you."

"Same here," added Coach Bolly.

"Then that's settled," said Lulu. She looked at Coach Farnsworth. "We need to have a conference with your team so we can explain one of your plays to you." She turned back to Coach Bolly. "Dismissed!" she said. Then she turned to the referee. "Add some more minutes to this official's time-out!" she said.

"Yes, ma'am," said the referee. He started toward the official clock.

Coach Bolly started back toward the University of Oklahoma side of the field.

Coach Farnsworth and the rest of the University of Texas team huddled around Dinky, Lulu, and Wong.

Lulu turned to Dinky. "Now that I've gotten things in order," she said, "you may continue."

Dinky flushed. "Well, you see," he began. Then he explained the Porta Table. "So if we encode 'OVER THE RED RIVER TO GRANDMA'S HOUSE,' using the key word 'CRAZY,' we'll have: 'AARF HVZ EQP DQIQF FG TFZMYZZG VGHGQ,' " he said.

Coach Farnsworth turned to the quarterback. "You got that, Billy Joe?" he said.

Billie Joe rolled his eyes twice and said, "Yeah, coach, I got it!"

Coach Farnsworth turned back to Dinky, Lulu, and Wong and said, "He's got it!"

The team broke the huddle and headed toward midfield.

Coach Farnsworth ran back to the Texas side of the field.

Dinky, Lulu, Wong, and Ivan ran back to the Secret Code Service building.

"Ivan!" Dinky shouted. "Where'd you come from?"

"I vas in the huddle," said Ivan. "Thank you so much for that excellent secret presidential message." Then he disappeared into the stands.

"Dinky, where have you been?"

Dinky, Lulu, and Wong looked up. Ethel was standing at the Secret Code Service counter, hands on her hips.

"What's wrong now, Ethel?" said Wong.

"What do you think's wrong, little dogies?" said Ethel. "Those scheming University of Oklahoma cheer-

leader spies figured out that last cheer. They're ruining us!''

''Well, we'll just have to do another one for you, then,'' said Dinky. ''Come on.''

''We need to change first,'' said Lulu, ''so we'll be ready to take in another play.''

''Oh, yeah, that's right,'' said Wong. ''We need to put on our Oklahoma uniforms.''

''*Oklahoma* uniforms!'' shouted Ethel. ''Are you crazy? Are you traitors? Why are you working for *them*?''

''You should know better than to ask that,'' said Dinky. ''We at the Secret Code Service do not take sides.''

''You mean I invited you all the way down here to root for Texas and you're suiting up for the University of Oklahoma?'' said Ethel.

''It's only to deliver secret football messages to the huddle, Ethel,'' said Wong. ''We're not rooting for anybody.''

Ethel exhaled slowly. ''Well, all right, if you're just doing your job,'' she said, ''but I can't say that I'm very happy about this!''

''It's a job that has to be done,'' said Lulu, ''and we're just the people to do it. Of course, some people wouldn't know about things like that!''

''Just cool it, Lulu,'' Dinky said. ''We can wait about changing uniforms.'' He looked at Ethel. ''What cheer do you want put into code?''

''Well, things are getting pretty tough out there,'' said Ethel. ''This is all-out war. I want one of our best cheers put into code: 'GET THAT BALL! GET THAT BALL!' ''

''GET THAT BALL! GET THAT BALL!'' repeated Dinky.

"You got it," said Ethel.

Lulu rolled her eyes.

Dinky began flipping through his codebook. Then he looked back at the last football play he had encoded. "You know," he said, "the Porta Table would probably work well for this cheer."

"Give me a break!" said Lulu. "You're going to waste the Porta Table on a silly cheerleader yell?"

Ethel turned. There was fire in her eyes. "A *silly* cheerleader yell!" she shouted. "You think they're silly? You obviously do not realize the importance of cheerleading and in what high regard cheerleaders are held in the state of Texas! Songs have been written about cheerleaders and poems and books and short stories and essays, too. Cheerleaders have been inducted into the Texas Hall of Fame and have become doctors and lawyers and business executives and even Dallas Cowboy Cheerleaders! So don't tell me about cheerleaders, girlie! You're looking at one of the most important cheerleaders in history. Even though I am First Lady of the Great State of Texas, I am first and foremost a cheerleader, and I am proud of it!"

Lulu's eyes were wide, and she was breathing heavily.

Dinky and Wong began applauding.

Lulu turned on them. "I won't forget this!" she shouted. "I shall never, ever, in my entire life, forget this!" She turned to leave.

"Where are you going?" Dinky asked.

"I'm going to look for bugs!" Lulu shouted.

Ethel looked puzzled. "She always was a little peculiar," she said. Then she looked at Dinky. "Let's hurry up with that cheer," she said. "I want to get back so those scheming University of Oklahoma cheerleader spies

can steal it and then we can start working that Texas crowd up into a frenzy!''

Dinky showed Ethel the Porta Table.

''Looks good to me,'' said Ethel.

''If we use the Porta Table, then we'll have to have a key word,'' said Dinky, ''and I think it would be clever to use 'OKLAHOMA.' ''

''Oklahoma!'' shouted Ethel. *''Never!''*

''Yes, but Ethel,'' protested Dinky, ''who on the University of Oklahoma cheerleading squad would ever think that you'd use the word 'OKLAHOMA'?''

''Say, that's not such a bad idea after all,'' said Ethel. ''Those scheming University of Oklahoma cheerleader spies would never figure that out. What would the cheer be?''

Using the Porta Table and the key word ''OKLAHOMA,'' Dinky began encoding ''GET THAT BALL! GET THAT BALL!'' When he finished, he said, ''The cheer is 'NWB GXUA OUQQ! TUM AUUB TNOS!' ''

''NWB GXUA OUQQ! TUM AUUB TNOS!'' repeated Ethel. ''How can that be right? Shouldn't the second phrase be a repeat of the first?''

''Not necessarily,'' explained Dinky, ''because when you repeat the key word, it doesn't always line up with the same letter in the clear message.''

''Well, if you're sure,'' said Ethel.

''I'm sure,'' said Dinky.

''Ah, ha!'' shouted Lulu.

Everybody looked up.

Lulu was leading Mr. Langley by the arm. ''Look who I found trying to plant another bug!'' she said.

Mr. Langley had an embarrassed grin on his face. ''I can't believe she caught me,'' he said. Then he grinned

even more. "But she didn't catch me before I learned 'NWB GXUA OUQQ! TUM AUUB TNOS!' " He jerked away from Lulu's grasp. "This is just what the President needs!" he shouted. Then he began running toward the presidential viewing stand.

"What's he talking about?" said Ethel. "And why in the world does he need one of my cheers? Is he working for those scheming University of Oklahoma cheerleader spies?"

"I don't think so," said Dinky. "He keeps saying that the President needs to know all the Texas and Oklahoma football plays."

"Yeah," said Wong. "He thinks your cheers are football plays."

"Why in the world would the President need to know all the football plays?" said Ethel. "Can't he just sit back and enjoy the game and be surprised like the rest of us?"

"Apparently not," said Dinky.

"Well, I'm on my way back to work up that Texas crowd into a frenzy," Ethel said. Then she started running back toward the Texas side of the stadium.

"Did you really find a bug?" Wong said to Lulu.

"Yes, one," replied Lulu, "but he probably had planted more before I found this one."

"This is getting out of control," said Wong. "I didn't feel this out of control back in Washington, D.C."

"I know what you mean," said Dinky. "I just can't get a handle on anything that's going on."

"Hey, where can a fellow get some popcorn around here?"

Dinky, Lulu, and Wong looked up. A man and a woman were standing at the counter. They were dressed all in red and were waving pom-poms and pennants.

"Buzz off!" Lulu shouted.

"Boy, you Texans sure aren't very friendly," shouted the woman.

"Yeah, next year we'll just stay home in Bug Tussle and watch the game on television!" shouted the man.

"You do that!" Lulu shouted back.

The man and woman turned and left.

"Listen, Lulu," Dinky said, "you need to realize that that's not the way to win friends and influence people around here."

"I am not trying to win friends and influence people around here, Dinky Lakewood," Lulu said. "I am just trying to do my job and that's to be the best spy there ever was!"

The referee blew his whistle and ran over to the Secret Code Service counter. "Coach Bolly says you guys need to send him in a play," he said.

Dinky picked up the list of Oklahoma football plays. "Okay, tell him we'll have it for him in a minute," he said.

"I'll call an official's time-out," the referee said, "but you'd better hurry." He blew his whistle. "Official's time-out!" he shouted.

"We're doing the best we can!" Lulu shouted.

"Yeah!" Wong shouted.

"Keep calm, guys," said Dinky. "We can't lose our cool under fire. We're being tested, you know that, don't you? These are battlefield conditions. We're not back home in Washington, D.C., in friendly territory, where government officials and senators and congressmen and spies all work together in harmony. We're out in the real world!"

"*This* is the real world?" said Lulu.

"I'm afraid so," said Dinky. He picked up his codebook and started looking through it. "You know, we haven't used the Vigenère Table in a long time and I think it's about time we did. Here, I'll write it out so we can encode the next Oklahoma play." He began writing:

	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
A	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
B	B C D E F G H I J K L M N O P Q R S T U V W X Y Z A
C	C D E F G H I J K L M N O P Q R S T U V W X Y Z A B
D	D E F G H I J K L M N O P Q R S T U V W X Y Z A B C
E	E F G H I J K L M N O P Q R S T U V W X Y Z A B C D
F	F G H I J K L M N O P Q R S T U V W X Y Z A B C D E
G	G H I J K L M N O P Q R S T U V W X Y Z A B C D E F
H	H I J K L M N O P Q R S T U V W X Y Z A B C D E F G
I	I J K L M N O P Q R S T U V W X Y Z A B C D E F G H
J	J K L M N O P Q R S T U V W X Y Z A B C D E F G H I
K	K L M N O P Q R S T U V W X Y Z A B C D E F G H I J
L	L M N O P Q R S T U V W X Y Z A B C D E F G H I J K
M	M N O P Q R S T U V W X Y Z A B C D E F G H I J K L
N	N O P Q R S T U V W X Y Z A B C D E F G H I J K L M
O	O P Q R S T U V W X Y Z A B C D E F G H I J K L M N
P	P Q R S T U V W X Y Z A B C D E F G H I J K L M N O
Q	Q R S T U V W X Y Z A B C D E F G H I J K L M N O P
R	R S T U V W X Y Z A B C D E F G H I J K L M N O P Q
S	S T U V W X Y Z A B C D E F G H I J K L M N O P Q R
T	T U V W X Y Z A B C D E F G H I J K L M N O P Q R S
U	U V W X Y Z A B C D E F G H I J K L M N O P Q R S T
V	V W X Y Z A B C D E F G H I J K L M N O P Q R S T U
W	W X Y Z A B C D E F G H I J K L M N O P Q R S T U V
X	X Y Z A B C D E F G H I J K L M N O P Q R S T U V W
Y	Y Z A B C D E F G H I J K L M N O P Q R S T U V W X
Z	Z A B C D E F G H I J K L M N O P Q R S T U V W X Y

Then he put down his pen. "Whew!" he said. "My hand is getting tired." He looked up at Wong. "What's the Oklahoma football play we need to encode? I looked at it, but I've forgotten what it is."

"It's called 'LONE STAR FLEA FLICKER,' " said Wong.

"Whoever came up with these names must have a few rocks in his head," said Lulu.

Dinky ignored her. "Okay," he said, "now to encode 'LONE STAR FLEA FLICKER' using the Vigenère Table, we'll need a key word."

"I'm having trouble remembering all of these key words," said Wong.

"Actually, it's very important to be able to remember them," said Lulu. "It's what separates the good cryptologists from the bad cryptologists. I can remember all of the key words, so that makes me a good cryptologist. Since you can't remember any of the key words, I'm sure you're bright enough to know what that makes you!"

Wong turned to Dinky. "Do I have to put up with this?" he said.

"Let's just get this play encoded and take it out to the Oklahoma huddle," said Dinky. "If we don't start doing better and faster work than we've been doing, our reputation is really going to suffer."

Lulu made a face.

"I need a good key word," said Dinky. "Do I always have to think up one myself?"

Wong looked around the stadium. "How about 'COTTON BOWL'?" he said.

"That's a good idea," said Dinky.

"Ha!" said Lulu. She made another face.

"Okay, I'll write the name of the football play on the first line and then the key word underneath it," said Dinky. He began writing:

LONESTAR FLEAFLICKER
COTTONBOWLCOTTONBOW

"You can see that with this key word I only need to repeat 'COTTON' once and the 'BOW' of the second 'BOWL.' Now, then," he continued, "let's get out onto that playing field and show these Oklahoma football players how to do this!"

"Aren't you going to encode the whole message like you did before?" demanded Lulu.

"No," said Dinky. "I think it'd save time and be more beneficial to our customers if we showed them how to do it themselves."

"I question your reasoning, Dinky Lakewood," said Lulu. "It seems to me that what you're actually doing is giving away our trade secrets. I am quite sure that one of these days you will regret having given away this information."

But Dinky and Wong were already putting on their University of Oklahoma football uniforms.

Lulu hurriedly slipped into hers.

When they were dressed, they notified the referee, who signaled an official's time-out, and the three of them ran onto the field and joined the University of Oklahoma huddle.

"Ready to take over?" shouted Bobbie Lee.

"Doesn't your coach ever tell you anything?" Lulu shouted back.

"Uh, well, sometimes," said Bobbie Lee.

"We are not taking over this time," said Dinky. "We are simply out here to instruct you in the code you'll be using to run your next play."

"Oh, okay," said Bobbie Lee, "start instructing!"

"Let's all sit down on the artificial turf here," said Lulu, "and get more comfortable. This'll take a few minutes."

The Oklahoma football team all took off their helmets and sat down around Dinky, Lulu, and Wong.

Then Dinky started explaining the Vigenère Table. "In the Vigenère Table," he began, "we're using a different code for each letter of the football play, 'LONE STAR FLEA FLICKER.' "

"Yeah!" shouted the football team.

"That's a good one," said Bobbie Lee.

Lulu rolled her eyes.

"The alphabet across the top is the clear alphabet and the alphabet down the side is the key alphabet," Dinky continued. "This means that we'll have to have a key word in order to encode this play."

"I've got one!" shouted Bobbie Lee.

"Thanks," said Dinky, "but we've already decided on 'COTTON BOWL.' "

"Say, that's what I was going to say," said Bobbie Lee.

"Well, you know what they say about great minds," said Lulu.

"Huh?" said Bobbie Lee.

Lulu rolled her eyes again.

"You'll notice that the Vigenère Table is actually a sliding alphabet," said Dinky, "since each alphabet has shifted over one letter to the left of the one above."

"Man, this is great," said Bobbie Lee.

''Now, I think we're ready to start encoding 'LONE STAR FLEA FLICKER,' '' said Dinky.

''Okay!'' shouted the team.

''The first thing you do,'' Dinky began, ''is to use the top alphabet for the clear message, which is, remember, 'LONE STAR FLEA FLICKER,' and the alphabet down the side for the key word 'COTTON BOWL.' Now, then . . .'' He took out a sheet of paper and a pencil. ''Write out the clear message and put the key word underneath it'':

LONESTARFLEAFLICKER
COTTONBOWLCOTTONBOW

''You can see that we only need to use 'COTTON' twice and 'BOWL' once plus 'BOW' of the second 'BOWL.' You only need to use as much of the key word as is necessary.

''Now, you find the clear message in the top alphabet and the key letter of the key word in the alphabet down the side.

''Okay, find 'L' in the top alphabet, then follow it down its column until you get to 'C' on the side alphabet. Where these two columns intersect is the code letter 'N.' ''

''Great, man!'' said Bobbie Lee.

''Now the second letter in the clear message, 'O,' intersects with the second letter in the code key word, which is also 'O,' at 'C,' so 'O' equals 'C.' If we keep doing this, then 'LONE' equals 'NCGX.' ''

''Man, let me do one,'' said Bobbie Lee, ''since I'm going to have to call this play in the game.''

''Okay,'' said Dinky.

"What do I do first?" asked Bobbie Lee.

"All right," said Dinky, "find 'S' in the top alphabet."

"Got it," said Bobbie Lee.

"Now, go down the column until you reach where it intersects with 'O' in the key alphabet," said Dinky, "and what letter do you see?"

" 'G'!" shouted Bobbie Lee.

"Yeah!" shouted the rest of the team.

"Great!" said Dinky. "Want to do the rest of the message?"

Bobbie Lee looked over to the side of the field where Coach Bolly was jumping up and down. "Better not," he said. "Coach Bolly wants us to get on with the game."

"Okay, I'll do the rest of the message for you," Dinky said. He began working feverishly. Finally, he said, " 'LONE STAR FLEA FLICKER' fully encoded is . . . 'NCGX GGBF BWGO YEWPLSN.' "

"NCGX GGBF BWGO YEWPLSN," said Bobbie Lee. "Got it!" He turned to the other players. "Got that, men?" he asked.

"Yeah!" shouted the other players.

They all stood up, put on their helmets again, and ran back to the line of scrimmage.

Dinky, Lulu, and Wong rushed off the field back to the Secret Code Service building.

The referee blew his whistle and play resumed.

"Ladies and gentlemen!" boomed a voice over the public address system. *"The University of Texas is pleased to announce a player substitution. At quarterback, replacing Billie Joe Bascum, is the President of the United States of America!"*

A cheer rose from the Texas side of the stadium.

Dinky, Lulu, and Wong looked at each other.

"What is this all about?" asked Dinky.

"I don't know," said Lulu, "but I smell espionage all over the place!"

Chapter Eight

Dinky, Lulu, and Wong watched as the President of the United States, dressed in the orange and white football uniform of the University of Texas, made his way out onto the field and into the huddle.

"History is being made today," said Dinky.

"You're right there, fellow!"

Dinky, Lulu, and Wong looked up. Mr. Langley was standing at the counter, leaning on his elbows. He looked very relaxed. "I feel good," he said. "A job well done."

"Would you care to explain what this is all about?" said Lulu.

"Why not?" said Mr. Langley. "The job's over. I don't mind letting you in on a few of my trade secrets. Besides, I've been thinking about writing a book about my experience."

Lulu's eyes brightened. "Oh, yeah?" she said. "Well, I've got a few secrets I'd like to tell, too. I bet I'd be worth at least a chapter!"

"Lulu!" Dinky shouted. "You signed an oath!"

"I did not!" Lulu shouted.

"Well, you should have!" Dinky shouted back. "We all should have! You owe your loyalty to the Secret Code Service!"

"I owe my loyalty to nobody!" Lulu shouted. She turned back to Mr. Langley. "What about it?" she said.

"Actually, the book'll be about my own experiences," Mr. Langley said, "about how I alone helped the President of the United States achieve his highest goal."

"To become President of the United States?" said Dinky.

"Heck no!" said Mr. Langley. "To become the winning quarterback in the Cotton Bowl!"

"How'd you do that?" asked Wong.

Mr. Langley nodded toward the football field. "That's why I needed all those football plays," he said. "The President wanted to know the plays of the winning team. Then he planned to join that team at halftime so he could come out a winner."

"Isn't this all sort of illegal?" asked Dinky. "Doesn't he have to attend the University of Texas and go out for football to be eligible to play?"

Mr. Langley smiled. "In 1932," he said, "the Cotton Bowl Committee established a rule that both teams could use surprise players during the game, you know, to make things more interesting. Well, nobody ever took that rule off the books. The President isn't doing anything illegal."

"This is incredible," said Lulu, "an absolutely brilliant piece of treachery. I am quite impressed."

"You should be," said Mr. Langley.

"There's only one problem," said Dinky.

"What's that?" asked Mr. Langley.

Then Dinky realized that he himself was about to

betray the Secret Code Service. He couldn't tell Mr. Langley that the President of the United States had the University of Texas cheerleader yells, *not* the football plays. It was going to be an interesting second half. "Nothing," he said.

"Play's about to begin," said Wong. "The University of Oklahoma is kicking off! There it goes!"

"The President has the ball!" shouted Dinky.

"What's he doing with it?" asked Lulu.

"He's holding it up in the air like a pom-pom," said Dinky, "and he's prancing up and down!"

"His mouth is also moving up and down," said Wong. "What's he saying?"

Dinky grabbed his binoculars off the counter. "I don't believe this," he said. "He's just standing there with the ball, saying, 'XCAP MU JIKS! XCAP MU JIKS! EIG JIKS!' "

"That's one of the secret football plays I got for him," said Mr. Langley, "but I have no idea what it means."

"Well, if you want us to decode it for you," said Lulu, "it'll cost you five dollars."

"All right," said Mr. Langley. He took out his wallet and handed Lulu five dollars.

"It means 'PUSH 'EM BACK! 'PUSH 'EM BACK! WAY BACK!' " said Dinky.

"Boy, you people really are fast at this," said Mr. Langley.

Dinky smiled.

"Why doesn't the President run with the ball?" said Lulu.

"Too late," said Wong. "He's just been tackled."

"This doesn't look too good," said Mr. Langley.

"It certainly doesn't," said Lulu.

The two football teams lined up at the line of scrimmage.

Then the referee blew his whistle. "Time out, Oklahoma!" he shouted.

From across the field, Coach Bolly started running toward the Secret Code Service building. He had a scowl on his face.

"Oh, oh," said Dinky, "looks like trouble. Get ready!"

When Coach Bolly got to the counter, he was breathing hard.

"Is there something we can do for you?" Dinky asked.

"You most certainly can," said Coach Bolly. "I'd like to know how the University of Texas rates having the President of the United States on its team. I protest!"

"Too bad!" said Mr. Langley.

Coach Bolly looked at him. "What team do you coach, buddy?" he said.

"The winning team," said Mr. Langley. "I alone am responsible for the President's playing for the University of Texas."

"I protest again!" said Coach Bolly.

"It's not going to do you any good," said Mr. Langley. "It's all on the up and up."

"Ha!" said Coach Bolly. He looked at Dinky, Lulu, and Wong.

They shrugged.

"It's an old rule from the 1932 Cotton Bowl Committee," said Dinky. "Any team may have one surprise player per game."

"Well, boy, it's a surprise all right," said Coach

Bolly. He shook his head. "I guess we've lost this one for sure!" He turned to start back out onto the field.

"Maybe not!"

Everybody turned. Ivan was leaning against the counter. He had a grin on his face.

"What team do you coach, buddy?" asked Coach Bolly.

"I am Ivan Ivanovich," said Ivan. "I am a member of the Russian KGB. Ve determined through our intelligence netvork that your President aspired to the position of vinning qvarterback in the Cotton Bowl. This must be a position of even greater power than the presidency. I came all the vay from Moscow to Dallas to learn to be a better qvarterback than your President. I have studied and studied and now I know all there is to know!"

"Then buddy, you're our man!" said Coach Bolly. "We want you on our team." He looked at Dinky, Lulu, and Wong. "We need another play in code from you," he said. "We've got the ball . . ." He turned to Ivan. ". . . and we've got our surprise player now, too!"

"Okay," said Dinky.

"Come on, Ivan," said Coach Bolly, "let's go get suited up!"

"I'll have the public address announcer make the announcement," said the referee.

Coach Bolly and Ivan started toward the tunnel.

"I just may have to vrite a book about all of this," Ivan said.

Lulu looked after them. "Wait up!" she shouted. Then she started running toward the tunnel.

Dinky turned to Mr. Langley. "Well, what now?" he said.

"I'm thinking," said Mr. Langley. "I may have to replace all of my bugs so I can hear the new secret football plays that you'll be encoding. With this Ivan fellow in the game, the President just may be in a lot of trouble. Looks like I'm going to have to rewrite the end of my book."

Wong looked at Dinky. "We really are going to have to invest in some *real* debugging equipment if this keeps up," he said.

He and Dinky watched as Mr. Langley disappeared into the crowd.

"Well, we need to get started on that University of Oklahoma play," said Dinky. He picked up the Oklahoma list. "What next?"

Wong looked over his shoulder. " 'ZIG ZAG SNIG SNAG PASS THE BALL DEEP!' " he said. "That's interesting. What code should we put it in?"

"We need something fast," said Dinky. "Maybe we should use a different type of transposition code. We haven't used any of those for football plays, just for Ethel's cheers."

"Speaking of Ethel," said Wong, "here she comes."

"Oh, good grief," said Dinky, "just when we didn't need to see her. Hi, Ethel!"

"Don't talk to me, Dinky Lakewood," Ethel said. "Just give me another cheer in code that those scheming University of Oklahoma cheerleaders can steal!"

"Problems?" said Wong.

"You said it! I have never in my entire life seen such a complacent bunch of football fans as those Texas fans are!" said Ethel. "Every time I come back from spying on those University of Oklahoma cheerleader spies, they're all just *sitting* there. I mean, you'd think

they didn't even know what they'd been yelling. Here I am killing myself to work them up into a frenzy and it's just not doing any good. I've decided it's time to get tough with them. It's time to show them what I'm made of!''

''What's the cheer this time, Ethel?'' asked Dinky.

Ethel stared straight at Dinky. There was fire in her eyes. '' 'SMASH 'EM, RIP 'EM, TEAR 'EM UP!' '' she shouted.

''You're getting kind of violent, aren't you?'' said Wong.

''This is a violent game,'' said Ethel. ''Life is violent. If you can't stand the heat, get out of the kitchen!''

Lulu, Ivan, and Coach Bolly were coming out of the tunnel.

Ivan was now dressed in the uniform of the University of Oklahoma football team. He and Coach Bolly rushed out onto the field.

Lulu walked over to the Secret Code Service counter and leaned against it. ''I think I'm going to be Chapter Three,'' she said. ''Ivan thinks I've led a really incredible life!''

''Ha!'' said Ethel. ''You haven't lived until you've been a University of Texas cheerleader!''

''That's really great, Lulu,'' said Dinky, ''but we've still got a lot of work to do. We need a play for the University of Oklahoma and a cheer for Ethel.''

''And we need to be quick about it,'' said Wong, ''because Mr. Langley is going to plant some more bugs, now that Ivan's in the game.''

''Couldn't you stop him?'' asked Lulu.

''We don't have the personnel to do that,'' said Dinky.

"We're rather shorthanded right now. *Some* of us have to encode our customers' messages . . ."

". . . while the rest of us try to become chapters in other people's books," added Wong.

"Well, at least *I* know how important I am," said Lulu. She turned and started running across the field toward the University of Oklahoma side.

"Could you hurry it up?" said Ethel. "I need to get back to that complacent crowd."

"Ethel, things are beginning to get a little hectic around here," said Dinky. "If you don't mind, why don't you just go on back to the Texas side and we'll bring your encoded cheer to you."

Ethel thought for a minute. "I think I'd better go back to the *Oklahoma* side and keep an eye on those scheming University of Oklahoma cheerleader spies," she said. "Just give the cheer to one of the other Texas cheerleaders. I'll check on them later." She turned and started running toward the Oklahoma side of the stadium.

"Come on, let's get started," said Dinky. "We need to get all of these cheers and football plays encoded before we have such a backlog that we'll never get out from under it!"

"Let's start with the Oklahoma football play first," said Wong. "Coach Bolly is really jumping up and down over there on the sidelines."

"Okay," said Dinky. He started looking through his codebook again. "Here, this is a good one. It's a spiral transposition code, going clockwise, from the outside to the center."

"Could you show me how to do it before Lulu gets back?" said Wong. "All of a sudden, it's important to me."

"Well, okay," said Dinky. "First, you look at the clear message."

"It's 'ZIG ZAG SNIG SNAG PASS THE BALL DEEP!' " said Wong.

"Right," said Dinky. "Now you count the letters in the clear message."

Wong started counting. "There are twenty-nine letters in the clear message," he said.

"Good," said Dinky. "Now find the closest multiple to twenty-nine. It can be exactly twenty-nine or over, but it can't be under."

Wong started multiplying in his head. "There's no exact multiple of twenty-nine, but six times five is thirty," he said. "That's *one* over."

"That's the multiple you need," said Dinky. "Now, that means you'll have six rows of five letters or five rows of six letters. It doesn't make any difference."

"I think I'd like to have five rows of six letters," said Wong.

"All right," said Dinky, "now with this transposition code, you start at the upper left hand corner and write the first five letters of the clear message."

Wong started writing:

Z I G Z A

"Okay, now what do I do?" he asked.

"Well, now you just think of the square as a circle," said Dinky, "so you write the next *five* letters vertically under the 'A.' That'll give you *six* letters in the last column.

Wong did as he was told:

Z I G Z A
G
S
N
I
G

"This is great," he said. "Now what?

"Now, you go back to the left," said Dinky, "the same way the hands of a clock would move, and you keep going in a spiral until you reach the center."

Wong continued writing:

Z I G Z A
S T H E G
S E P B S
A E A N
P D L L I
G A N S G

"There's a hole in the middle," he said.

"That's because there is no exact multiple of twenty-nine," said Dinky. "Remember that six times five is thirty and in that hole is where you put the thirtieth letter. All you need to do is add a nonsense letter. You usually just start with the regular alphabet. So all you need to do is put in 'A' to fill up the hole."

"Okay," said Wong. He added 'A' to the code:

Z I G Z A
S T H E G
S E P B S
A E A A N
P D L L I
G A N S G

"That's it," said Dinky.

"But how are they going to call it out as a play?" asked Wong.

"We'll have to separate it," said Dinky, "just like we did for Ethel's cheers."

"Oh, yeah," said Wong.

"You can separate it in several ways," said Dinky. "You can start with vertical columns from left to right and the play would be 'ZSSAPG ITEEDA GHPALN ZEBALS AGSNIG.' "

"That's not too bad," said Wong. "Are there other ways you can do it?"

"Sure," said Dinky. "You can start with the bottom line and go up: 'GANSG PDLLI AEAAN SEPBS STHEG ZIGZA.' Or you can start with the last line and go to the left: 'AGSNIG ZEBALS GHPALN ITEEDA ZSSAPG.' Or you can start with the top line and go down: 'ZIGZA STHEG SEPBS AEAAN PDLLI GANSG.' "

"Can you start with one of the middle columns and work either way?" asked Wong.

"Sure," said Dinky, "but that would make it more complicated and harder to figure out."

"Maybe we'd better not do that," said Wong. "Coach Bolly might have trouble with it."

"You're right," said Dinky.

"But how would you ever figure this out if you were on the same side and your spy partner sent you a message?" asked Wong.

"Well, if your spy partner sent you a message," explained Dinky, "you'd have agreed beforehand which way you were going to write it, either from top to bottom or from left to right, so you wouldn't have any problems."

"Oh, so the only person who'd have a problem with it would be the person you didn't want to figure it out in the first place?" said Wong.

"Right," said Dinky.

"Well, I'd better go ahead and deliver this message to Coach Bolly so we won't get into trouble," said Wong. He began putting on the University of Oklahoma football uniform. "I'll just give him the first way you separated it, vertical, from left to right."

"Okay," said Dinky. "While you're taking the football play to Coach Bolly, I'll encode Ethel's cheer."

DINKY WILL ENCODE "SMASH 'EM, RIP 'EM, TEAR 'EM UP!" AT THE BEGINNING OF THE NEXT CHAPTER, USING A SPIRAL TRANSPOSITION CODE, CLOCKWISE FROM THE UPPER LEFT HAND CORNER TO THE CENTER, AND SEPARATING THE MESSSAGE VERTICALLY FROM LEFT TO RIGHT. DO YOU THINK YOU CAN DO IT BEFORE HE DOES?

Chapter Nine

"Boy, it's rough out there," said Wong. He was breathing hard. "I didn't think I was going to get out of there alive."

"It's a close game," said Dinky. "Things are beginning to get serious."

"But I think the University of Oklahoma is beginning to gain ground," said Wong.

"Really?" said Dinky.

"Yeah, the President keeps doing all those cheers, instead of calling out the plays, and Texas keeps getting penalized," said Wong. "Boy, Coach Farnsworth is really mad. But what can he do? You can't just kick the President of the United States off your team!"

"It's a problem all right," said Dinky. "Did you see Lulu?"

"She's still over on the Oklahoma side," replied Wong. "She said she needs to be near Ivan."

"Why does she need to be near Ivan?" asked Dinky. "Is she encoding football plays for him?"

"No, she's writing Chapter Three of his book," said

Wong. ''It's all about how wonderful she is and what an exciting life she's led.''

''Oh, brother,'' said Dinky.

''Do you have Ethel's cheer encoded yet?'' asked Wong.

''Just about,'' said Dinky. '' 'SMASH 'EM, RIP 'EM, TEAR 'EM UP!' in a spiral transposition code, going clockwise from the outside to the center, would be:

S M A S H
E A R E E
T P U M M
M E P I R

and separating it for a cheer vertically from left to right, it would be 'SETM MAPE ARUP SEMI HEMR.' ''

''Good,'' said Wong. ''Now, I'd better rush it over to Ethel before she gets really upset.'' He started off.

''Wait a minute!'' shouted Dinky.

Wong stopped. ''What's wrong?'' he asked.

''Don't you think you'd better take off that University of Oklahoma football uniform?'' said Dinky. ''Those University of Texas fans might not let you come back!''

''Oh, yeah,'' said Wong. ''I'm glad you thought of that.'' He rushed inside the Secret Code Service building and changed into his regular clothes.

''I'll start encoding a play for Coach Farnsworth and the University of Texas,'' said Dinky.

''All right,'' said Wong. He started toward the Texas side of the stadium. ''Be back in a minute,'' he called.

''I just don't understand what could be wrong!''

Dinky looked up. Mr. Langley was standing at the counter. "What's wrong?" he asked.

"There's something wrong with my state-of-the-art electronic bugs," replied Mr. Langley. "They're not working." He thought for a minute. "I bet that Russian fellow jammed them! They're always jamming my bugs. I didn't get any of those secret messages you just encoded and boy, am I going to be in trouble!"

"Why?" asked Dinky.

"I think the President needs some new football plays," said Mr. Langley.

"What makes you say that?" asked Dinky.

"I mean, look at him!" said Mr. Langley. "The University of Texas is losing and he's still jumping up and down like a cheerleader! I gave him all those secret football plays that I got by bugging your place with my state-of-the-art electronic equipment. I just don't understand what the problem is!"

Dinky picked up his binoculars and looked out onto the field at the President.

"What's he doing now?" asked Mr. Langley.

"He's standing up at the line of scrimmage, shouting, 'NWB GXUA OUQQ! TUM AUUB TNOS!' " said Dinky.

"What does that mean?" asked Mr. Langley.

Dinky hesitated. Would he be giving away a secret if he told Mr. Langley what it meant? Should he charge him the five-dollar decoding fee? He looked at the President again. No, he realized, the damage has already been done. "It means 'GET THAT BALL! GET THAT BALL!' " he replied.

"Let me look," said Mr. Langley. He took the binoculars from Dinky and looked out onto the field. "But

they *have* the ball!'' he shouted. ''Even I know enough about football to tell them that. What's wrong with that man, anyway?''

Dinky smiled. Sometimes secret knowledge was a marvelous thing. ''I'm afraid that I can't discuss this matter any further,'' he said. ''I have a job to do.''

''Man, I've got to get these bugs working,'' Mr. Langley muttered. Then he disappeared behind the Secret Code Service building.

Dinky smiled to himself again. Then he picked up the University of Texas football plays list and looked at the next play. '' 'CHICKEN WISHBONE,' '' he said. ''I think I'll use the spiral transposition again, but this time from the inside out. I like to change things a little bit.''

''Boy, were those Texas cheerleaders glad to see me!'' Wong said, as he came inside the Secret Code Service building. ''Those Texas fans are really beginning to act strange.''

''What are they doing?'' Dinky asked.

''They're all just sitting there, rolling their eyes and staring at the cheerleaders,'' Wong said. ''It's really weird.''

''Did you see Ethel?'' Dinky asked.

''No, I guess she's still spying on those scheming University of Oklahoma cheerleader spies,'' Wong replied. ''Do you have Coach Farnsworth's play ready?''

''Just a minute,'' Dinky said. He began writing:

N W I S
E C H H
K C I B
A E N O

"This time, I think I'll separate it from right to left, vertically, so the play would be 'SHBO IHIN WCCE NEKA.' " He handed the play to Wong. "Better run this out in a hurry," he said.

Wong started out onto the field.

"Stop!" Dinky yelled.

Wong stopped. "What's wrong now?" he asked.

"You need to change into the University of Texas football uniform," Dinky said.

"Oh, yeah," said Wong. He rushed back into the Secret Code Service building and hurriedly changed, then he headed back out onto the field.

"I'm just about through!"

Dinky looked up. Lulu was standing at the counter.

"Through with what?" Dinky asked.

"With Chapter Three of Ivan's book about his experiences as a member of the Russian KGB," replied Lulu.

"How do you *really* fit into all of this, Lulu?" Dinky asked.

"I am—and here I am quoting—one of the most intelligent people that Ivan has ever encountered in all his years in the service of his country," Lulu replied. "In fact, Ivan said that my name is known behind the walls of the Kremlin." She smiled.

"The *Kremlin*?" said Dinky. "Are you sure?"

"Of course, I'm sure," said Lulu. "Ivan said that they talk about me all the time in the highest spy circles in Moscow."

"I bet he was kidding you," said Dinky.

Lulu inhaled sharply. "He was *not* kidding me," she said. "Russian KGB agents do not kid. They are very serious." She raised an eyebrow. "You could learn a lot from them," she added.

"Lulu, you'd better be careful," said Dinky. "You're getting too involved with the customers!"

"I am not!" said Lulu. "I know what I'm doing. Besides, Ivan isn't a *real* customer. He's just bugging our office. And it's important to me to be immortalized in his book. It'll probably be a best-seller. It's about time the whole world knew about me. Anyway, just think of all the free advertising we'll get. I included our address and rates at the end of the chapter. I bet when it hits the bookstores we'll have so much business we'll have to put on three shifts, so we can be open twenty-four hours a day, seven days a week."

"My parents'll just love that," Dinky said.

"We'll probably need a bigger building, too," Lulu continued. "Maybe we could even rent space at the State Department or the Pentagon . . . or the CIA!"

"Let's wait until the book comes out before we make any really big plans," said Dinky.

"That's the trouble with you, Dinky Lakewood," said Lulu. "You don't think big enough!"

Just then Wong rushed up. "Man, the University of Oklahoma is running all over those Longhorns out there," he said. "Did you see that run that Ivan just made? It was the longest run in Cotton Bowl history. And Coach Farnsworth is furious. He wants to swap the President for Ivan, but Coach Bolly said no."

Mr. Langley walked up. "Do any of you know anything about dejamming state-of-the-art electronic bugs?" he asked. "I still can't get these to work and I've got to do something quick. I just got a call from the White House on my beeper and they told me that the President has to have some new football plays fast!"

"Well, I'm sorry," said Lulu. "If you want any more football plays, you'll just have to bug our office."

"That's what I've been telling you," said Mr. Langley. "I can't! My state-of-the-art electronic bugs aren't working!"

Dinky, Lulu, and Wong smiled.

"Just keep trying," Wong said.

Mr. Langley shook his head in dismay. "I'll just have to call Washington for some dejamming equipment and have it put on the next flight out," he said. Then he disappeared behind the building.

The referee ran over to the sidelines and blew his whistle. "Time-out, University of Texas!" he shouted.

Dinky, Lulu, and Wong looked up. The President of the United States was running toward them.

"Uh, oh, what are we going to do when he gets here?" asked Dinky. "What'll we say to him?"

"I don't know," said Wong. "I've never talked to a president before."

"Boy, no wonder you guys aren't a chapter in somebody's book," said Lulu. "Here's what you do." She started humming "Hail to the Chief."

Just then, Mr. Langley walked up again and said, "Oh, oh, I'm in for it now!"

"I want to talk to you, Langley!" shouted the President.

"Yessir?" said Mr. Langley.

"Those football plays you gave me aren't working," said the President. "Every time I call one out, we're penalized!"

"Don't blame me, Mr. President," said Mr. Langley. He pointed to Dinky, Lulu, and Wong. "That's where I got my information."

The President turned to Dinky, Lulu, and Wong. "I need some better plays," he said.

"I'm sorry, sir," said Dinky, "but we only *encode* or *decode* the secret messages that people bring to us."

"Yessir," added Wong. "We never make anything up." He looked at Lulu. "At least, most of the time we don't."

"Everything in Chapter Three of Ivan's book is absolutely true and can be verified!" shouted Lulu.

"But I'm the President of the United States," said the President, "and I demand that you give me some new football plays!"

"I'm sorry, sir," said Dinky, "but we don't have any that we can give you. If you already had one, we'd be glad to encode it for you."

"For a fee!" said Lulu. "We charge five dollars per football play. I discuss that in my new book."

The President looked at Lulu. "Who are you?" he said.

"She's . . ." Dinky started to say.

But Lulu interrupted him. "I'll tell him," she said. "I am perfectly capable of speaking to the President of the United States. After all, I'm the one whose name is being discussed behind the walls of the Kremlin in Moscow!"

The President turned pale. "It is?" he said. "You are?"

Lulu smiled. "Yes," she said. "And you can read about it in my new book, which will go on sale right after it has been published."

The President turned to Mr. Langley. "Make a note of that, Langley," he said. "I want to read all about her."

"Yessir," said Mr. Langley.

"Look, Dinky!" Wong shouted. "The University of Texas just scored a touchdown while the President was out of the lineup."

Everybody turned.

The President started shouting and jumping up and down. "Never mind the football plays," he said. "My team's beginning to win!" He ran back out onto the field. "Those plays must be good after all!" he yelled.

Mr. Langley took out his handkerchief and wiped the perspiration from his brow.

The President rejoined the University of Texas team at the line of scrimmage and immediately started jumping up and down and yelling, "NWB GXUA OUQQ! TUM AUUB TNOS! XCAP MU JIKS! XCAP MU JIKS! EIG JIKS!"

The University of Texas was immediately penalized for delay of game.

Mr. Langley slithered away behind the Secret Code Service building.

"Help! Help!"

Dinky, Lulu, and Wong looked up.

Ethel was running toward them.

"What's wrong, Ethel?" Dinky shouted.

"They're after me!" Ethel screamed.

Behind Ethel came several hundred angry University of Texas students, waving their fists in the air.

Dinky, Lulu, and Wong caught up with Ethel and began running alongside her.

"What's this all about?" Dinky shouted, as they continued to run around the sidelines of the Cotton Bowl.

"They're blaming me because we're losing the game," Ethel said.

"Why should they blame you?" asked Wong. "What did you do?"

"You know all those cheers we were yelling in code?" Ethel said.

"Of course, I do," said Dinky. "I encoded them for you."

"Well, I was so busy spying on those scheming University of Oklahoma cheerleader spies that I forgot to tell our cheerleaders to *switch*!"

"What?" said Wong.

"You mean that the Texas fans were yelling cheers in code all during the game?" said Dinky.

"You got it," said Ethel. "Now they think that's the reason we're losing."

"I don't believe this," said Lulu.

Ethel turned and looked behind her. The University of Texas fans were still chasing them. But now they had been joined by the other University of Texas cheerleaders. "Dinky, I need your help!" Ethel cried.

"What do you want us to do, Ethel?" shouted Dinky. "I'm getting tired of running."

"Me, too," said Wong.

"I have to keep running," shouted Lulu. "In Chapter Three, I said that I was a very good runner."

Ethel looked up. "We're back in front of the University of Texas Student Section," she said. She stopped. "Dinky, do you think you could explain to them the good I was trying to do? I don't think they'll listen to me?"

"Sure, Ethel," said Dinky. "I'll do it."

"It'll cost you!" said Lulu. "We charge for explanations, too!"

"Oh, Lulu!" said Wong.

"We'll do it for free!" said Dinky.

"You guys will never be in a chapter," said Lulu, "and they'll never talk about you behind the walls of the Kremlin, either!"

Dinky put up his hand just as the students who had been chasing them arrived. "Return to your seats," he shouted, "and I'll explain what has been happening."

"Yay!" shouted the students. They all began returning to their seats.

When they were all seated, Dinky said, "I shall now . . ."

Lulu tapped him on the shoulder.

"What's wrong, Lulu?" Dinky said. "Can't you see that I've just started trying to save Ethel's reputation?"

"I'm afraid you're too late," said Lulu. "Look at the scoreboard clock."

Dinky turned to look. Ten seconds were left in the game.

Across the field, the University of Oklahoma fans were beginning to yell, *"Ten . . . nine . . . eight . . ."*

"Look!" shouted Wong. "The presidential helicopter has landed on the fifty-yard line!"

"Who's that getting on board?" said Lulu. "He has on a University of Texas football uniform, but he's wearing eyeglasses with a moustache and a false nose."

"That's the President of the United States!" shouted Dinky.

The presidential helicopter lifted off just as the University of Oklahoma fans shouted, *". . . four . . . three . . . two . . . one . . . zero!"*

There was a tremendous cheer that shook the entire stadium.

"The game's over!" said Lulu. "The University of Oklahoma has won!"

"Look!" shouted Wong. "They're carrying Ivan on their shoulders to the dressing room."

Dinky turned to Ethel.

Ethel was looking up at the entire Texas side of the stadium. There was fear in her eyes.

Dinky looked up, too. *Everybody* on the entire Texas side of the stadium was now headed right toward them!

"Let's get out of here!" Ethel screamed.

"Come on!" Dinky shouted. "We can hide in the Secret Code Service building until this blows over!"

Chapter Ten

"I've just never done anything like this," said Lulu. Her voice broke. "I've just never run away before." She looked at Dinky, Wong, and Ethel. They were all crouching underneath the counter of the Secret Code Service building, out of sight. "What will they think of me now behind the walls of the Kremlin? Not only will I not be Chapter Three in Ivan's book, I probably won't even be a footnote!"

"Listen, sister," said Ethel, "just be thankful you're still alive."

Wong's eyes widened. "Was it that serious?" he said.

"Was it that serious?" said Ethel. "Are you kidding me? This is Texas, honey, and football is serious business in Texas. Didn't you see it in their eyes?"

"Yeah," said Dinky. "It was scary!"

Ethel hung her head. "I wonder what the Governor is going to say about all of this," she said. "He was counting on me to win this game for him and I let him down. I am a failure as a First Lady!"

"No, you're not," said Dinky. "I think you're a great First Lady!"

"Right!" said Wong.

Everybody looked at Lulu. But she was busy writing.

"What are you doing, Lulu!" asked Dinky.

"I'm rewriting Chapter Three," Lulu replied. "I am attempting to rationalize my behavior. Maybe I can convince Ivan that I am still worthy of a whole chapter."

"Miss Ethel! Miss Ethel!"

Dinky and Wong looked at Ethel.

"Who's that?" Dinky asked.

"It's Lucky Jones, the Governor's bodyguard," said Ethel. "Do you think it's safe to stand up?"

"The game's been over for three hours," said Dinky. "I think everybody has left the stadium."

Ethel stood up slowly. Dinky and Wong followed.

"Here I am, Lucky!" Ethel shouted.

"I've been looking all over for you, Miss Ethel," Lucky said. "The Governor wants to see you in the Governor's Lair above the press box right away. He has a new assignment for you!"

Ethel blinked. "I guess he's not mad at me," she said. She looked at Dinky and Wong. "After all, I did the best job I could, didn't I?"

"Of course you did, Ethel," said Dinky.

Wong nodded.

Lulu continued to write frantically.

Ethel looked at Lucky. "Did he say what the new assignment was?" she asked.

"I think I'd better let . . ." Lucky started to say.

But Ethel interrupted him, her eyes gleaming. "I know what it is!" she said. "We play Texas Tech next week. He wants me to try again!" She looked at Dinky

and Wong. "What about it, guys?" she said. "Do you want to get together next week in Lubbock and help me win that game?"

"Uh, well, I don't think so, Ethel," Dinky stammered.

"Yeah," said Wong, "I think my parents have a lot of chores for me to do next weekend."

Ethel looked at Lulu.

"Sorry, Ethel," Lulu said, "but I need next weekend to finish this chapter so I can get it to my editor."

"Well, little dogies, it was just an idea," Ethel said. She thought for a minute. "Maybe I could use some of the same codes that we used in this game. I bet those scheming Texas Tech University cheerleader spies would never figure them out!"

"That's a great idea, Ethel," Dinky said.

Ethel sighed. "Unfortunately," she said, "I lost all those pieces of paper you wrote them down on when we were being chased around the sidelines."

"That's okay," said Dinky. "I made copies of them." He took several sheets of paper out of his backpack and handed them to Ethel.

"The Governor and I thank you," Ethel said.

"Our pleasure, Ethel," said Wong.

"I'll tell my driver to drop you guys off at the airport," Ethel said.

"Great!" said Dinky.

He and Wong watched as Ethel and Lucky began climbing the steps up to the Governor's Lair.

Then Dinky turned to Lulu. "Come on," he said. "We need to get our things together and catch the next flight out to Washington, D.C."

"You're right," said Lulu. "There's probably a lot of work waiting for us when we get back."

"Did you think of a reason to explain why you ran away, Lulu?" Wong asked.

Lulu bristled. "Not yet," she replied, "but with a mind as brilliant as mine, something will pop up, I'm sure."

"I can hardly wait to get back," said Dinky. "After all of this, Washington, D.C., will be a breeze!"

"You're telling me!" said Wong.

"Wait a minute!" Lulu shouted. "We can't leave yet!"

"Why not?" Dinky asked.

"You forgot to charge Ethel for those codes she's going to use next week in Lubbock!" Lulu said.

"They're the same ones she used today, Lulu," Dinky said.

"Yeah," said Wong. "She's already paid for them."

"Haven't you guys ever heard of *residuals*?" Lulu said.

"What?" said Dinky and Wong.

"You know, that's what they pay actors when they rerun television programs," said Lulu. *"Why shouldn't Ethel have to pay for rerun codes?"*

Dinky rolled his eyes. "Come on, Lulu!" he shouted. "Let's go!"

They all started out of the Cotton Bowl just as the stadium lights went out.

Chapter Eleven

Two weeks after Dinky, Lulu, and Wong arrived back in Washington, D.C., from Texas, letters began arriving at the Secret Code Service building in Dinky's backyard.

The letters were all in code. Do you think you can decode them?

If you have trouble, the solutions follow each letter. Remember: when you're decoding a secret message, the steps are the reverse of encoding.

LETTER NO. 1

RL VQSREV KEQSHQTDZ

SNWC YSJYJ UFZM PEZ HGDX

W WWGS NXEWNTB USYWONZS VC DLXCS MO EVZ PIK TTOTFCFLWX QLPD VDU W AUPM LM JKPJJ SGVPXMO ANFATO RUPRL ZGMT OMJ WV WNU QS GFK FU PSUWLP PE KMFE PK S WWLRDV UJ XFMS XSAFK OK QLYITYSSZT NIBZCRNLXOB WL KWS KTYITL IVDGRRS

DMLI UJSVMS
IPZHW UWLOVVK

(Hint: Use the Porta Table with the key word "SECRET SERVICE.")

SOLUTION TO LETTER NO. 1

In hiding, somewhere

Dear Dinky, Lulu, and Wong,

I have finally dejammed my state-of-the-art electronic bugs and I plan to start bugging people again. Look for me! I'll be out of hiding as soon as I finish my book about my incredible experiences in the Secret Service.

Your friend,
Ralph Langley

LETTER NO. 2

CVH UVTTMF PLMBIPNB

EFBS EJOLZ MVMV BOE XPOH

ZPV NBZ CF XPOEFSJOH XIBUFWFS CFDBNF PG NF XFMM J IBWF OPX GPVOE UIF QFSGFDU KPC UIF HPPE GPMLT BU UFMFWJTJPO TUBUJPO LCVH JO CVH UVTTMF PLMBIPNB XFSF TP JNQSFTTFE CZ NZ QFSGPSNBODF JO UIF GPPUC-BMM HBNF CFUXFFO UIF VOJWFSTJUZ PG PLM-BIPNB BOE UIF VOJWFSTJUZ PG UFYBT UIBU UIFZ PGGFSFE NF B KPC BT TQPSUT BOOPVODFS GPS UIF MPDBM IJHI TDIPPM HBNFT J IBWF OFWFS CFFO IBQQJFS JO NZ MJGF

ZPVS GSJFOE
UIF GPSNFS QSFTJEFOU

(Hint: Use the Grosfeld Table with the key number 0.)

SOLUTION TO LETTER NO. 2

Bug Tussle, Oklahoma

Dear Dinky, Lulu, and Wong,

You may be wondering whatever became of me. Well, I have now found the perfect job. The good folks at Television Station KBUG in Bug Tussle, Oklahoma, were so impressed by my performance in the football game between the University of Oklahoma and the University of Texas that they offered me a job as sports announcer for the local high school games. I have never been happier in my life.

Your friend,
The Former President

LETTER NO. 3

22-51-43-24-22-51-44-43-25-33 11-24-23-34
25-11-34-32-42-33-22-44-43-33 41-31

41-51-11-24 41-42-33-52-45 13-54-13-54 11-33-41 25-43-33-22

42 25-11-33-44-51-41 44-43 13-51-44 45-43-54 52-33-43-25 44-32-11-44 44-32-51 24-54-34-34-42-11-33 22-43-15-51-24-33-23-51-33-44 32-11-34 22-42-15-51-33 23-51 11 13-51-11-15-51 43-12 11-21-34-51-33-31-51 44-43 53-13-11-45 53-24-43-12-51-34-34-42-43-33-11-13 12-43-43-44-21-11-13-13 25-42-44-32 44-32-51 25-11-34-32-42-33-22-44-43-33 24-51-41-34-52-42-33-34 44-32-51 31-43-11-31-32 44-43-13-41 23-51 44-43-41-11-45 44-32-11-44 42-12 45-43-54 11-24-51 11 53-24-43-12-51-34-34-42-43-33-11-13 12-43-43-44-21-11-13-13 53-13-11-45-51-24 11-33-41 25-11-33-44 44-43 24-54-33 12-43-24 53-24-51-34-42-41-51-33-44 43-12 44-32-51 54-33-42-44-51-41 34-44-11-51-34 42-44 41-43-51-34-33-44 23-11-44-44-51-24 42-12 45-43-54 25-51-24-51-33-44 21-43-24-33 32-51-24-51 42-23 44-32-42-33-52-42-33-22 11-21-43-54-44 42-44

45-43-54-24 12-24-42-51-33-41
42-15-11-33 42-15-11-33-43-15-42-31-32

(Hint: Use the Greek Arithmetical Table, leaving out the letter "J.")

SOLUTION TO LETTER NO. 3

Georgetown Arms,
Washington, D.C.

Dear Dinky, Lulu, and Wong,

I wanted to let you know that the Russian Government has given me a leave of absence to play professional football with the Washington Redskins. The coach told me today that if you are a professional football player and want to run for President of the United States, it doesn't matter if you weren't born here. I'm thinking about it.

Your friend,
Ivan Ivanovich

LETTER NO. 4

UWMHTWL UWGDLC

RPDT RTQMM WXNI LQF KZQI

UFHUG HKCH T GKRYW OOVH KH ER NIMEQQV DHHPU CZW DU GZRP OD WJS RRXSCQQF DDY AP KG GLLF WX DRDZLPHTQI MZX VVP QGK EHZOD DOPLVUOORT HZ VKPPUKO TVPH EKCH HRPRPUHIW ZG VLYG GYRY HHHNJP PQBEKU CFW QT EKG MPDT GZ LVG VLPR ZI ECWG JSCH DIE WJS ARNOC EGOCV CFP ITWPQFZJ FQAP DPR DHG AP ZJSY BQI NDP OYG UHLB KB ERWQS

BQIC ITWPQF
SEKGZ

(In order to decode this letter, Dinky used the key word ''COLD'' and one of the codes in this book. It's up to you to find out which one!)

SOLUTION TO LETTER NO. 4

Siberia, Russia

Dear Dinky, Lulu, and Wong,

Guess what? I didn't make it to Lubbock after all. As soon as the Governor saw me he said, "I'm appointing you the new Texas Ambassador to Siberia!" Isn't that wonderful? We have snow twelve months out of the year, so it's kind of cold here, but the polar bears are friendly. Come and see me when you can and stay in touch.

Your friend,
Ethel

(Hint: Use the Vigenère Table with the key word "COLD.")

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